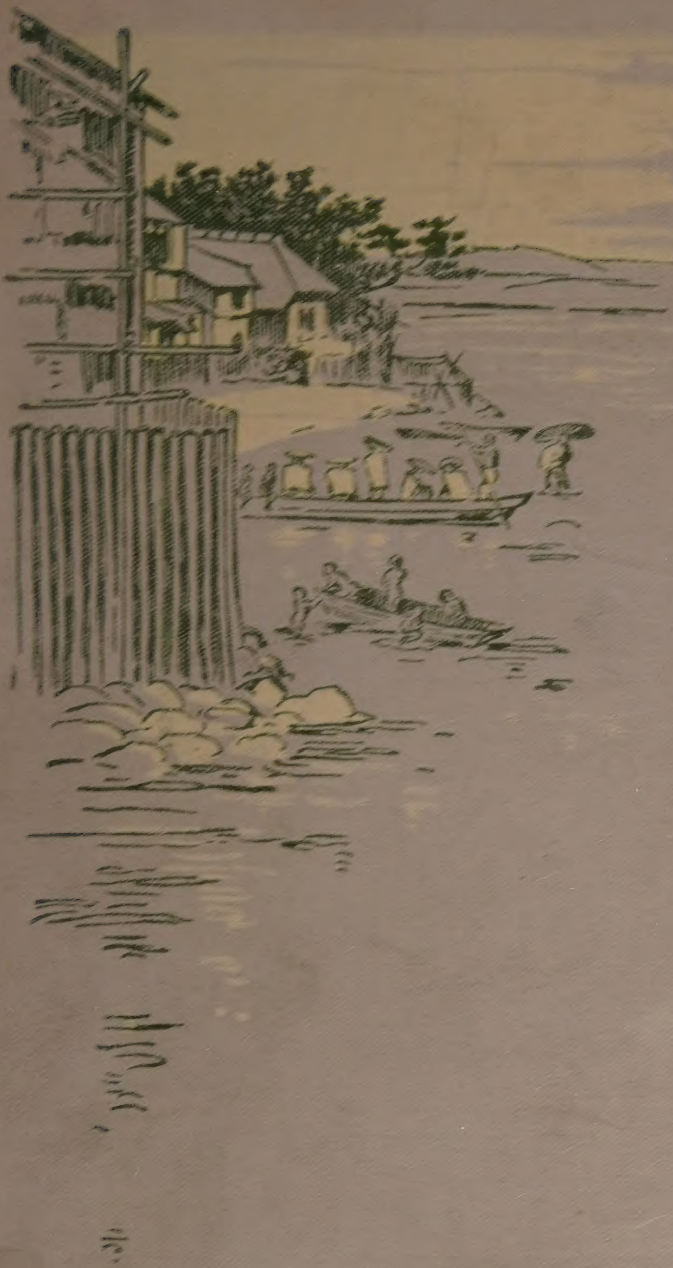

JAPAN DAY BY DAY

BY EDWARD S. MORSE

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Japan day by day, 1877,
1878-79, 1882-83

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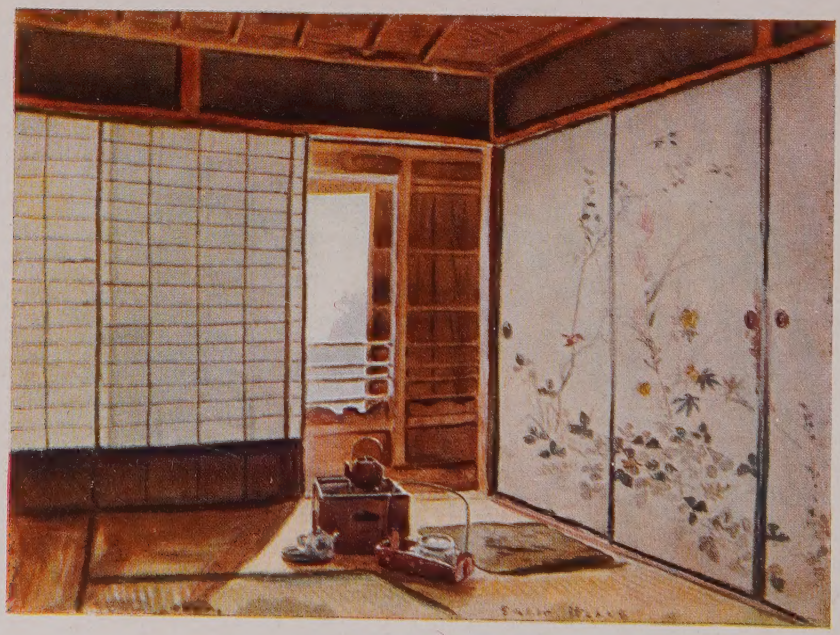

JAPANESE EXTERIOR AND INTERIOR

Village Street, Asama Hot Spring, and Room in Inn, Miyanoshita

Watercolors by Bunzo Watanabe, 1882

JAPAN DAY BY DAY

1877, 1878-79, 1882-83

BY

EDWARD S. MORSE

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THEIR SURROUNDINGS," ETC.

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IN THE AUTHOR'S JOURNAL

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JAPAN DAY BY DAY

CHAPTER XIII

THE AINUS

We were told by a servant of the house that just back of the town a dance, or ceremony, was going on in an Ainu hut. I had not entered an Ainu hut, though one meets Ainus in the street, so we all went to the place and were invited into the hut, which consisted of one large room. There were three Ainus in the room, all with heavy black beards and tangled mops of long hair, their faces strongly resembling those of our race. Not a trace of Mongolian was detected. These men were sitting cross-legged on the floor around a large dish of saké. One of them was performing a monotonous dance, making a curious gesture of the hands as if bowing to the window, to a glint of sunlight on the floor, to everything about the room, and to the shrine outside, which consisted of a dozen bear skulls stuck on the ends of long poles. They were all really intelligent-looking men, with their long, dignified beards, and it was impossible to realize that they were low, unlettered savages without moral courage, lazy, and strongly given to drunkenness, supporting themselves by hunting with bow and arrow and fishing. One of the Japanese with me asked them where I came from, and they answered that I was the same as the Japanese!

One old fellow, who was very drunk, showed me a quiverful of their terrible poisoned arrows; another one told him to be careful, and I felt rather nervous as he walked behind me with an arrow in his hand, performing in curious gestures and singing a monotonous chant. One man strung his bow to show me how they shoot the arrow, and when he took the arrow from his quiver he first very carefully removed the poisoned point. This point consists of a blade of bamboo, and I noticed a white powder on it. The poison used is said to be aconite of some form, and so virulent is it that the Ainu bear is killed by it.

We gave them twenty cents to replenish their vessel of saké, and when it was brought we had to drink with them. It was worse than eating worms to drink out of their dirty dishes. The Ainus, in turn, poured out a large lacquer cup full of saké, and, resting a long, thin piece of wood resembling a carved paper-cutter across the cup, sat down and went through a series of movements, first taking the stick and dipping the end of it into the liquor and sprinkling a few drops in front of them. They made a movement such as one would make in removing a speck or a fly from milk. This they did several times, offering the drops to different points of the compass; but I observed how slight were their offerings of the precious liquor to the gods. They then stroked their full beards and made a peculiar upward movement of the hands toward their beards as a sign of thankfulness. After this long introductory they raised the cup toward the mouth, and taking the stick lifted the heavy mustache away from the wine as they drank. These sticks are known as mustache sticks, and many had interesting Ainu designs carved upon them.

The hut was simply a large, square room literally black with soot. The fireplace was a square area in the middle of the dirt floor, over which, hanging from the roof, was a simple device to suspend a pot or kettle. Most of their household effects were in round Japanese lacquer boxes. In many things the evidence of Japanese contact could be seen: in the quavering voice in singing, in their dance, and in other behavior; or possibly the Japanese may have derived some of these features from the Ainu centuries ago when the Ainus occupied the whole country. There were one or two openings in the hut besides the door, but the place was too dark to make out details. Figure 365 is the merest apology of a sketch made in the dark. I hope to get more details of the Ainu huts later.

While we were in the hut an Ainu woman came in. She had large, coarse features and a wild, untamed look in her eye.

Fig. 365

She was working on some kind of a garment and, between stitches, scratching for fleas. I have seen three Ainu women thus far, and they all had an indigo-colored area resembling a mustache painted about their mouths (fig. 366). It is a curious custom, and though bad enough looking, it was not half so hideous as the blackened teeth of the Japanese married women.

Fig. 366

On the 29th of July we left Otaru for Sapporo. The specimens we had collected at Otaru were packed in large saké kegs. These objects consisted of a hundred shells of the big scallop, a big oil can of alcohol in which was the material we had dredged, a pile of ancient pottery from the shell heap, etc. Our horses were brought to the inn, two of them having foreign saddles for Professor Yatabe and me, the others with pack-saddles which required a lot of blanket padding. Our pack consisted of two large willow baskets. The driver of the train rode another horse, while Mr. Sasaki and the servant preferred to walk, thirty miles being nothing to a Japanese. As there are no wheeled vehicles, or jinrikishas, we had before us, after leaving Sapporo to ride across Yezo on horseback, one hundred and fifty miles, or walk. I must admit to a feeling of apprehension about this long ride on horseback over a ragged roadway with different horses each day, — wild devils some of them too, — though we were told that from Sapporo to the east coast of Yezo the roads were fairly good. It was a curious fact that I had never been on the back of a horse before. The recollections of friends with broken arms, broken heads, and

accounts of others dragged to death with foot entangled in stirrup came up to haunt me with their terrors. However, I was in for it, and there was no time to walk, and if I broke my head I would not impiously accuse Providence, but look upon it as a result of my neglected education. Not caring to exhibit myself before the natives, I had my horse led beyond the boundary of the town while I walked. This was so enjoyable that I walked four or five miles before mounting the nag. The road for ten miles led along the coast. In two places the bluffs had been tunneled through, and in figure 367 is a view of Otaru through one of these tunnels. A fresh breeze blew in from the sea and the waves beat out their "everlasting anthem." Fishermen off shore were busy getting seaweed, a large *Laminaria* which is dried and exported to China in bales. The fishermen use a kind of fork on a pole ten feet long with a cross-bar at the end of the pole. The pole is thrust down into the forest of seaweed and then

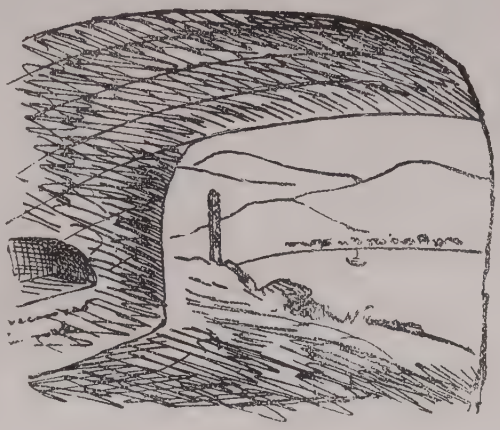


Fig. 367

Fig. 368

turned a number of times, twisting the seaweed in such a manner that it can be pulled from its moorings (fig. 368).

In the distance we saw our steamer on its way back to Hakodate. Such beautiful precipices we passed, over one of which a broad cascade fell. Such chances for an artist I have not seen elsewhere in the country; there were so many exquisite bits for

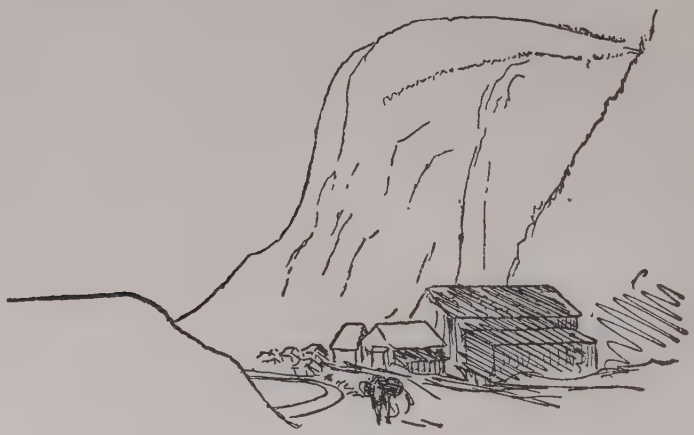


FIG. 369

the pencil and the brush. In figure 369 is one of these views, a place called Kamakotan with a long, curved beach in front and great basaltic cliffs, eight hundred feet in height. In some places these cliffs showed the most contorted structure, the basalt perfect in its crystallization. The lava had poured down in great masses which had cooled and crystallized in successive fiery floods. It was too complex a structure to sketch.

After a few miles I got upon my horse for the first time. I mounted with an air as if I had always ridden a horse, and what a manly, commanding sort of feeling it gave me. It is true the

horse was slow and persisted in walking unless urged into a violent trot, but nevertheless I felt like a commander, and it seemed as if I were at the head of an expedition for the survey of the world. It was some little time before I got accustomed to the motion, but after a while matters became easier, and from contemplating the horse with considerable anxiety, I could contemplate the landscape with some serenity. The sides of the road everywhere were strewn with large fronds of seaweed, drying. For ten miles it was a rugged path and very steep in some places. Along the sides of alarming cliffs "a false step," as the books say, might have precipitated me a hundred feet, but the horse knew better than to do such a thing, though my uncertain seat in the saddle made me somewhat nervous. After a while, getting on a level road, I had the hardihood to give the horse a gentle hint. Instantly I regretted it, for such a painful jolting I got; each individual step by each individual leg bumped me up and down with a dozen rebounds and I instantly pulled the horse up again. Before I reached Sapporo I had acquired the art of synchronizing my movements with the rigid bounce of the horse, and though very lame and sore I managed to trot mildly after a fashion.

Our first resting-place was a collection of sleepy houses forming the village of Genibaku (fig. 370). At the inn where we stopped were signs of former activity and importance. Long suites of unoccupied rooms recalled the daimyo processions that used to pass across the island. Now the house was in a moribund state, the rice was poor, and I had hard work to supply my "chemical laboratory" with anything palatable. After leaving the place the road became wider and led

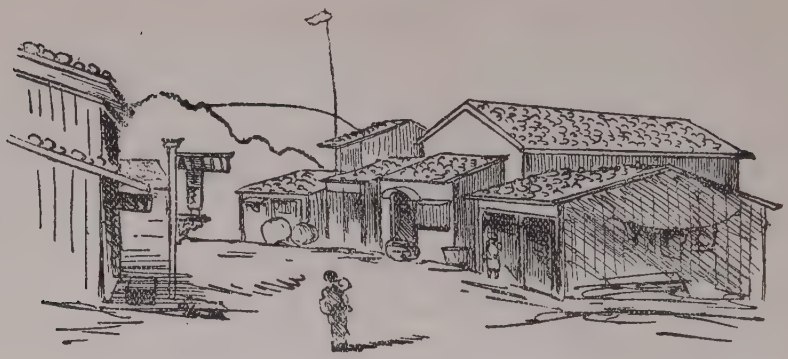


FIG. 370

away from the coast. The heat now became oppressive, and a huge horsefly, much larger than those in our country, swarmed by hundreds. I dreaded them, for I was told that their sting was fearful. The horse repeatedly stumbled, nearly throwing me over his head, he was so occupied in switching and kicking them off. At times he would strike my legs a hard rap with his nose as he swung his head back, and I found it a difficult matter to sit straight and keep the horse straight too.

When we got within two miles of Sapporo we passed large military barracks, the houses built in foreign style. It was an odd sight to see these long rows of one-story houses with windows and chimneys. The soldiers live here the year through and have their families with them. After passing this station we were met by a very polite Japanese officer, who spoke English very well, and who, receiving word from Otaru that we were on the way, had come to escort us to town — Professor Yatabe to the best inn and me to the house of Professor Brooks, one of the officers in the Agricultural College, who was to take care of me. As we approached the town I noticed a

large building surmounted by a dome similar to our Capitol buildings at home; it looked like home in fact, and on inquiry I found it was really the capitol building of Yezo.

The streets of Sapporo are wide and cross one another at right angles. The whole town suggests a new but thriving village in our Western States. There are a number of houses occupied by Government officials built in our style, but the other houses were purely Japanese in character. Professor Brooks gave me a cordial welcome, and after brushing up he conducted me to the college and farm. The college had the appearance of our usual country college: common buildings without the slightest taste shown in their design or construction. In one room was an interesting collection of vessels and fragments from the shell heaps of Otaru. How I wanted them! In certain features of decoration they reminded one of the

Fig. 371

Omori pottery, but in form they were entirely unlike (Fig. 371). After examining these and other objects on the shelves, principally minerals, I was conducted to the farm, where I saw a huge barn modeled after one at the Amherst Agricultural College in Massachusetts. Last year I had chanced to see a report of the college with a picture of this model barn. It seemed too absurd to erect such a structure for the Japanese, as their requirements were so different from ours. But after riding through the country and learning more about the climate, I realized that farming in our sense might be done and in our way too, and therefore not only implements such as we use, but barns of our kind, were necessary. In the barn were tons of hay. We climbed to the cupola and had a fine view of the surrounding country, and in coming down had a big jump from a beam to the hay below. All this, with the odor of cows, made me homesick. At Professor Brooks's I had a quart of fresh milk. It was difficult to realize that I was in the heart of Yezo and that only eight years ago this place was a howling wilderness frequented by savage bears. That they still exist in the region is attested by the account of Professor Brooks that last year a bear was killed which had eaten four men one after the other, in one case breaking into a house to get the victim. It is to the highest credit of the Japanese that they not only conceived the idea of the Agricultural College, but sent to a Massachusetts Agricultural College for a man to establish the farming part of it. It is a rapidly growing town. A lager-beer brewery is making the finest lager beer, bottled for immediate use, as I was informed when a dozen bottles were presented to me.

The mountains seen from Sapporo are rugged-looking, though not high. Figure 372 represents the mountains looking

Fig. 372

northwest. The highest of these peaks is about three thousand feet; a volcanic mountain, still smoking, is also seen from Sapporo (fig. 373). Professor Brooks called my attention to some low mounds near the school, the largest one being twenty

Fig. 373

feet in diameter and two and a half feet high. We dug out two of them, reaching the original level of the ground, but found no pottery and but a few fragments of bones. Figure 374 shows their general appearance.

Fig. 374

The next morning, though stiff and lame from the ride, I walked, in the broiling sun, to some woods a few miles away, hoping to find some land shells under the dead leaves. The forest of beech and hard-wood was an ideal place for snails,

and I found a number of species that seemed identical with certain species I had found in New England. In hunting for these creatures one has to get down on his hands and knees and crawl about overturning layers of damp leaves and bits of bark. I had been searching for these little objects for some time when I heard a number of shouts, as if of warning. Looking up I saw, at a distance of fifty or seventy-five yards, a number of hairy Ainus, in a row, shouting at me and gesticulating. I waved my hand in recognition of their call and shouted back to them a Japanese word, "Yoroshii" (All right), as they all understand a little Japanese, whereupon they became more violent in their gestures and one pulled his bow and arrow in a series of jerks in what seemed to be a threatening manner. Then it suddenly occurred to me that they thought I was hunting for their graves, which they defend even to the extent of murder, and recalling the deadly poison of the arrow tips I reluctantly got up and walked away. With Professor Yatabe I visited the settlement from which these men had come, to inquire into the meaning of their hostile demonstrations and to explain to them that I was only hunting under the leaves for little snails, when they explained that one of their men had been killed and eaten by a bear a few days before, and that they had set a bear trap with a huge poison arrow, and they were warning me that I might get shot if I did not get out. This the Ainu had tried to express to me by pulling his own bow. They were afraid of coming nearer, not knowing quite where the string was which would spring the bow; and I on my hands and knees crawling about like a bear with the hidden trap ready to shoot me!

The next morning our pack-horses and saddle-horses were at the door. On one were loaded two cases of lager beer; on another two large, square, willow baskets filled with specimens. The Governor had kindly loaned us two foreign saddles until we should get to Hakodate. The horse provided for me was a huge fellow, and when I mounted and started off the lameness from the ride the day before only made his triphammer bouncing and rigidity more noticeable, and I felt completely and literally broken up. I stuck to him for some time, however, and then gave up in despair and, dismounting, walked for miles before I had the courage to remount. In crossing a large truss bridge I noticed a ponderous staging erected the entire length. Wondering what it was for, I learned that the bridge was to be painted. In some things the Japanese are remarkably dull, for at home a man with a ladder would have accomplished the whole thing in the time they were building the staging.

After all, there is luxury in riding along and overlooking the low bushes beside the road with the woods and marshes beyond. We traveled fifteen miles before we changed horses. I got a beast then that kicked and reared whenever I struck her with a stick, though by considerable urging I got her into a gallop, and then she tore along at a great rate. In my ignorance, it was the first time I had dared to venture on a gallop, and, to my surprise, I found it much easier than any other way. I was out of my saddle twenty times during the next ten miles to get some snails to study, for the habits of the larger snails here are quite different from those of ours at home. Here they seem to live on the leaves of bushes, and

you pick them off as you would ripe fruit. On this ride we got two specimens of fresh-water mussel, apparently like the pearl mussel, *Margaritana*, and the common New England *Unio complanatus*.

We reached Chitose, our resting-place for the night, and found there our German friend the doctor, who came on the steamer with us from Yokohama and who was now on his way across the island. I opened one of our boxes of beer and gave

Fig. 375

him six bottles, and you may imagine his delight. He could not thank us enough. Figure 375 shows the inn at Chitose, an old-fashioned one that used to be at the disposal of the daimyo and his retainers on their way from the west coast to the capital. Now its rooms are unoccupied save by an occasional visitor. A row of water tubs on the ridge of the roof gives the appearance of chimneys, which the Japanese house never has. The next morning we were up early, this time for a thirty-mile ride with one change of horses. My attention was so completely occupied with minding my horse and getting him into a gallop that I recall hardly anything from station to station, except that toward noon the road became more level and sandy and we realized we were approaching the east

coast. At noon we came in sight of the sea at a place called Tomokomai. Here we made a long stop waiting for Sasaki and a servant who had elected to walk. I envied them and should have preferred walking the entire distance, but it was such a fine opportunity to learn to ride that I could not resist it.

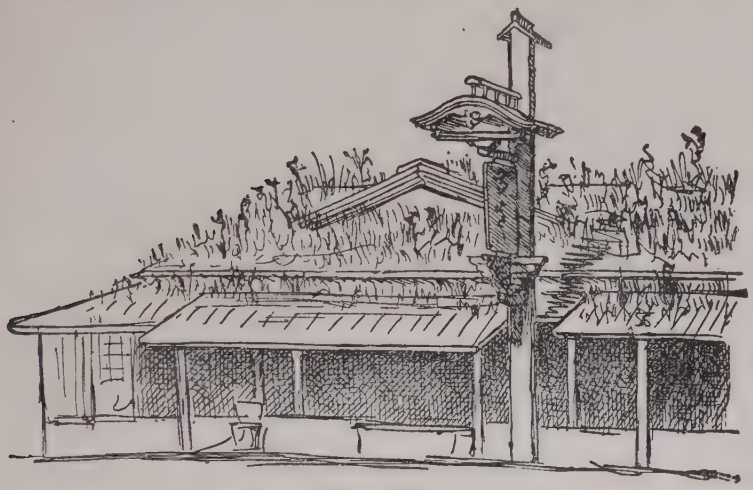


Fig. 376

Figure 376 is an old inn in Tomokomai, its roof grass-grown as are most of the houses we see. It is odd to see yarrow and other wild weeds and plants growing on the roof in luxurious profusion. On the beach I got a sketch of a few Ainu huts and an outlook (fig. 377). Here were a few Ainu fishermen

Fig. 377

making nets and curing fish. All along the road the Ainus we met were in the service of the Japanese, taking care of their horses in particular. When the Ainus ride they sit cross-legged and perched up high on the saddle, and whenever I saw them they were going at full gallop.

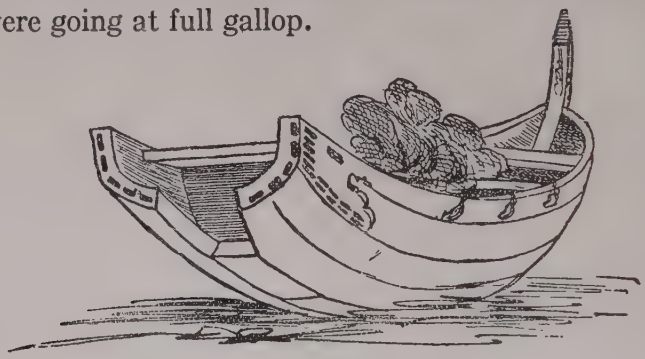


Fig. 378

On the beach was a Japanese fishing boat, twenty-five feet long, made after the model of a junk, its unpainted wood immaculate in cleanliness with a few ornamental designs in

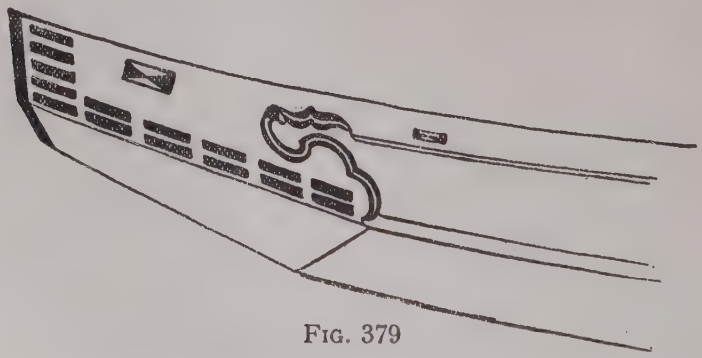


Fig. 379

black at the bow and stern. A large interspace in the stern for the rudder is a curious feature about the model; it is peculiar to all their junks. As before mentioned, there are no rowlocks;

simply short loops of rope hang down at the sides through which the oar is passed. Hanging just inside the bow is a tassel of shavings having some fancied effect in warding off danger or in insuring good luck; evidently derived from the god-stick of shavings of the Ainu from which the Shinto *gohei* is supposed to be derived. The boat was finished like a bit of cabinet-work, perfectly fitting joints, and so clean and attractive that I had to make a careful drawing of it. Figure 378 is a view of the boat from the stern; figure 379 is the stern from the side; and figure 380 represents the bow. The boat is loaded with a large fishing net and is waiting for the tide to float her.

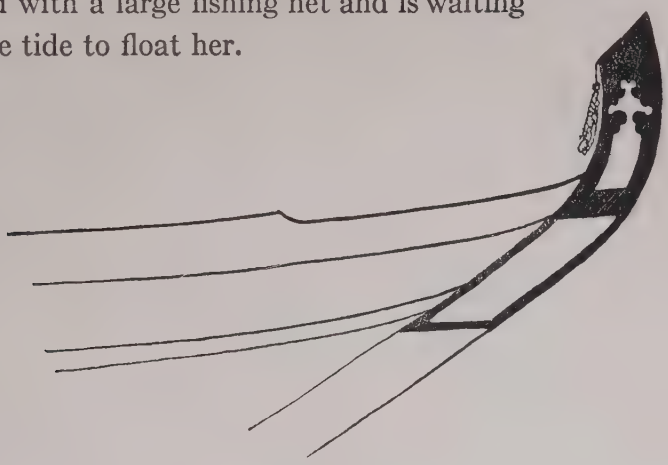


Fig. 380

All along the shore at intervals, or rather at every little settlement, is a rude sort of lookout erected on tall poles and used by the fishermen to see schools of fish at a distance or to burn lights at night. Figure 381 shows one of these lookouts at Tomokomai. The rough shelter on top seems to be made of odd pieces of wood, either fragments of wrecks or other stuff

thrown up on the beach. Another characteristic structure on the shore is a huge windlass to drag boats up from the water (fig. 382).

Fig. 381

The dogs of the country are of two types. One resembles the Eskimo dog in form and color, while the other type is almost precisely like a fox in color, form, motion, and bushy tail. If it is possible to get a cross between a dog and a fox there is certainly fox blood in these creatures. Every village has a pack of dogs, and at night they are very noisy, making sounds like cats, but more infernal; they howl and squeal, but never bark. Darwin has observed in his work on domesticated animals that when dogs relapse from their cultivated state to a semi-savage one, they lose the bark and take on the howl again. Wild creatures to which they are related never bark, but howl.

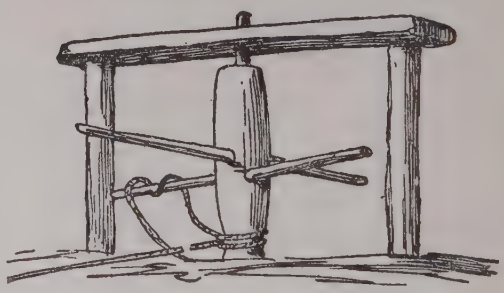


Fig. 382

From Tomokomai a curious mountain is seen known as

Tarumae. Figure 383 is a rough sketch of it, but it gives one an idea of the curiously formed mountains in Yezo. There were several Ainu houses in the place, but we had little time to examine them, and being told that our stopping-place for the next night was an Ainu village we pushed on to Shiraoi. The road now led along the sand beach, the road itself white and sandy, the broad Pacific on one side, with the constant roar of its breaking waves, and on the other side mountains of bizarre forms, probably all volcanic in origin. Despite blue glasses, the glare of the sun from the white sand became painful and after a few miles the ride became monotonous. We passed several small clusters of Ainu houses, and at one place overtook an Ainu with his little girl and boy and two dogs. The children were entirely naked, and the little girl carried by a head band a bundle resting on her back while the man led her by the hand. It seems strange to see the women and girls doing all the work while the man takes it easy. The women are all rather coarse in looks, but kind and good-natured and with manners of extreme diffidence. In nearly every instance when I saw them they persistently held their hands to their mouths as children do when bashful. In every case their mouths were bordered with an area of black, as before mentioned, and in some cases their arms were painted with a series of rings like bracelets. I learned definitely that the material they use for this coloring is simply soot from the kettle. The

Fig. 383

children resemble very closely European children, having large eyes and pleasant faces, but are exceedingly timid and bashful. As the women habitually hold the hand to the mouth in the presence of strangers, one gets the idea that they are hiding the paint about the mouth, but such delicacy is hardly credible, particularly as the children have this gesture. Figure 384 represents a woman carrying a load with the head band; figure 385 represents two Ainu women; figure 386 is a child, showing the red cloth earrings and the peculiar bang of the hair; and figure 387, three children sitting. They were in a dark hut and remained fixed like statues while we were present. A mop of coarse black hair is combed down straight about the head, cut short about the neck, hanging long over the ears, with a large bang in front. I had some difficulty in making sketches of the Ainus, as among some of them there is a superstitious dread of having their pictures made. So, while sketching them, I pretended to be

Fig. 384

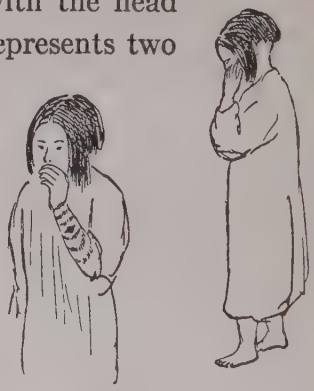


Fig. 385

Fig. 386

interested in something else, now and then getting in a glance when their attention was directed elsewhere.

Their huts are very dark and also very dirty. When we entered they would light a roll of birchbark to enable us to see about, but even with this illumination the hut was too dark to make out details. Figure 388 is an attempt to show the general arrangement of objects within. There was no end to them, — bundles, rolls of dry fish, and a number of fish fins of large size hung up to dry, and bows and quivers. Over the fire were parts of fish hanging to be smoked. The sleeping-place was simply a slightly raised platform on one side of the room, and on this platform was a round lacquer box with

Fig. 387

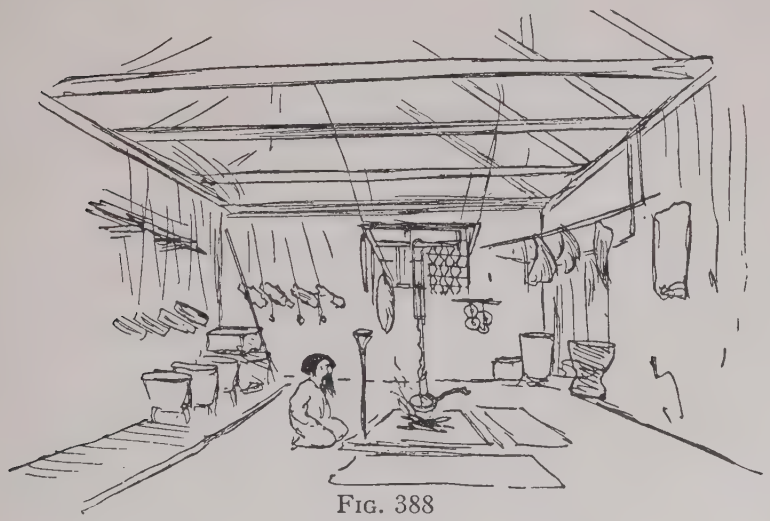


Fig. 388

cover, standing on four short legs. These boxes are made by the Japanese evidently for the Ainu trade, as in every Ainu house I saw a few.[1] In these boxes the Ainu keeps his treasures. On the wall are very old Japanese short knives or daggers, quivers full of poison arrows, and other implements of hunting. The entire contents of the hut are brown with smoke and the roof and rafters are black. The floor is mother earth, but on this they do spread a straw mat to sit upon. Whenever we entered their huts they would take down from the rafters above a rolled mat in which had been worked some simple design in brown and yellow straw and place it on the ground for us to sit on. Most of the Ainu sketches I made at Shiraoi, where there is quite an Ainu village (fig. 389). The Ainu houses are symmetrically made and the ribbed-straw roof is very neat and even attractive. I went through a number of Ainu villages and could find no evidence of alignment, or even street area. Narrow, irregular paths led through the grass from one house to another, but there were no cleared areas and no ground trodden down as if children played there. Most of the houses were surrounded by a high fence composed of bundles of sedge, or reeds such as their houses are made of. We

Fig. 389

[1] In the Peabody Museum there are three of these boxes, and I have had distinguished Japanese, old and young, give their opinion as to the uses of the object, and all vary, though the majority believe it to be a box to hold the shells used in a literary game.

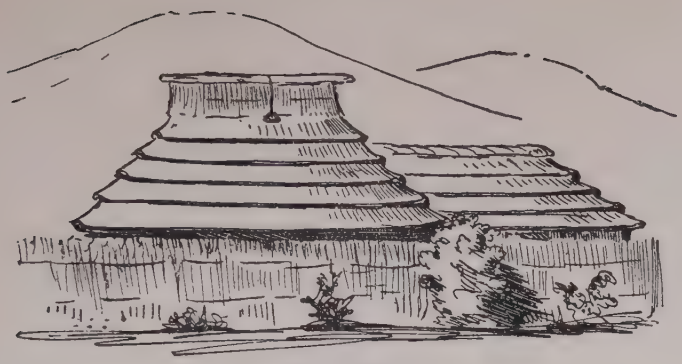


FIG. 390

were told that their houses last only six or eight years. The villages consist of thirty or forty houses; at least we saw many of that number. Many of the houses had a sort of ell, or porch, and this gave a better appearance. The roof is often thatched in such a way as to form a series of horizontal ridges, with a steep ridge running up vertically nearly two feet, and surmounted by a round stick. This was apparently held in its place by a straw rope which bound it to a transverse beam running through the base of the ridge. It is entirely unlike any roof I have seen in Japan. Figure 390 is an Ainu house with the peculiar ridged roof; figure 391 shows another Ainu house

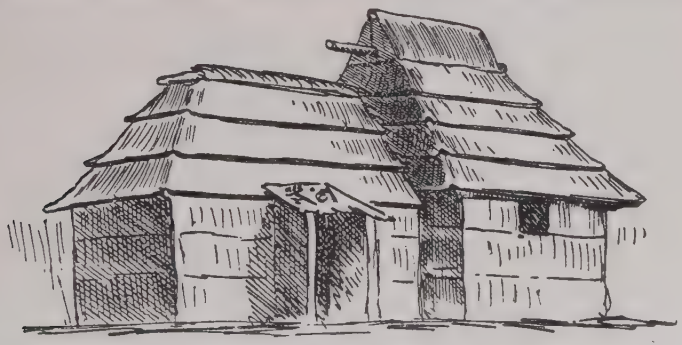


FIG. 391

with porch; and figure 392 is a larger view of the porch. The rake on top is not an agricultural implement, but a rude device to rake seaweed. One square opening admits the only light except what comes from the doorway. In one house I saw two windows with rough board shutters hanging down outside.

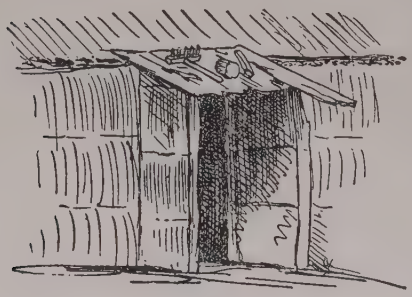


Fig. 392

The neatness and general picturesqueness of the house disappear when you enter: hard, damp ground beneath, blackened rafters above, and a strong fish smell pervading everything. Near the square fireplace stands a big bowl containing the remains of the meal, in every case consisting of fish bones, large, sickly looking ones. I saw nothing else to eat in their huts except smoked fins and other parts of a fish, hanging up, and some hard, dry cakes resembling the wheels of a child's cart. From one pole in the house were suspended (fig. 393) a satchel made of straw matting, the round hard cakes, and strips of fish. The utensils were large lacquer cups, the kettle over the fire and a few other objects, all of Japanese manufacture, and food bowls of wood

Fig. 393

made by the Ainus. Figure 394 shows the fireplace with a simple device to hold the kettle at different distances and the lamp consisting of a shell filled with fish oil and resting on a split stick. Figure 395 represents the gill covers and fins of a horse mackerel; figure 396 shows another way of cutting fish with skewers put in to keep the cuts apart; it is also cut in long strips. Figure 397 shows two fish heads and other articles and an air bladder of a fish. These last were hanging directly over the fire. All these are suspended from poles that hang up in the house and the smoke of the fire is sufficient to cure them. But think of living and sleeping in a house always charged

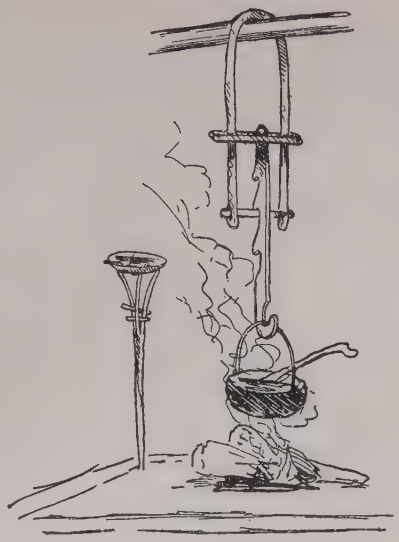


Fig. 394

Fig. 395

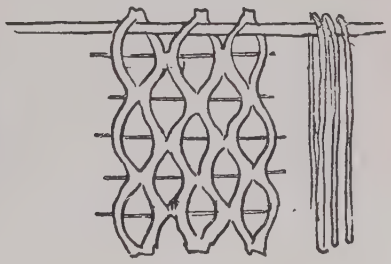


Fig. 396

with smoke, so thick at times that one has to run out now and then to get a breath of fresh air!

A number of sticks with curled shavings pendent, known as "god-sticks," were in one corner of the hut. I endeavored to buy one, but an offer of a million dollars would be no more effective than the offer of ten cents, as the Ainu has no idea of the value of money, or, indeed, any knowledge of the simplest arithmetic. Hanging on the bedside of the hut were Japanese daggers in silver scabbards, quite old, mounted on flattened, oval-shaped tablets of wood, the wood at the handle end ornamented by flat disks of lead of various sizes hammered into the wood

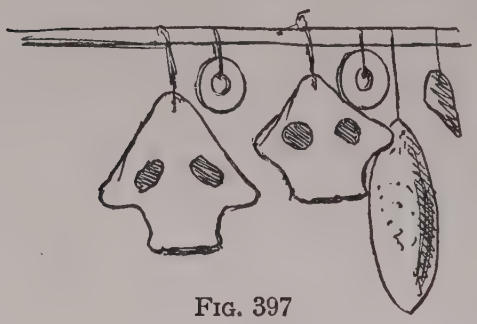


Fig. 397

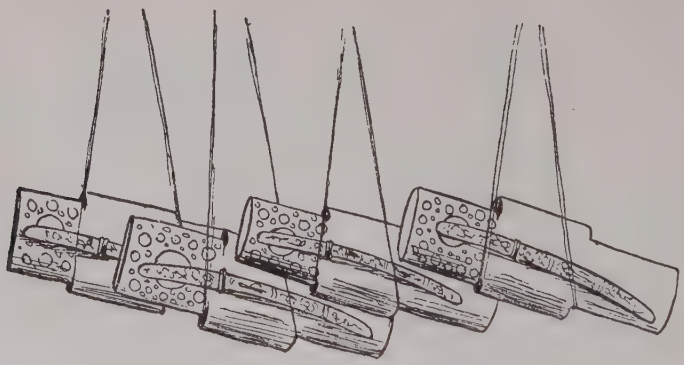


Fig. 398

(fig. 398). Whether these daggers were made for the Ainu trade as we make objects for the Indians of the Northwest, I could not learn. The Japanese with me said they were

very old and the Ainus seem to hold them in great veneration. At Otaru an old Ainu had one that he kept in a bag. He showed it to me and seemed to regard it as a most precious object. The handle was loose, but that did not seem to impair its value. On the walls, at right angles to the wall upon which the knives were hung, were three Ainu quivers with the covers hanging down; from the shape of these quivers the forms of

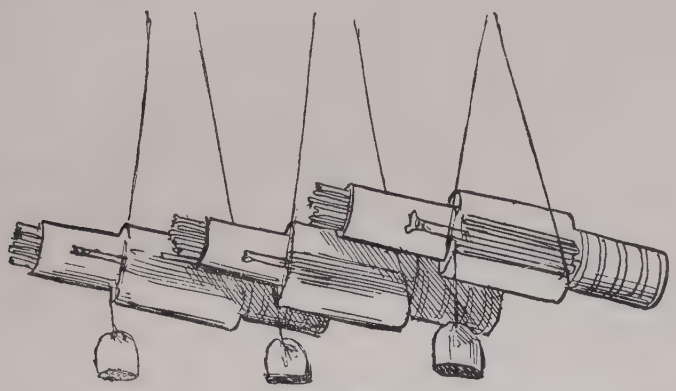


Fig. 399

the wooden tablets supporting the daggers had been derived. Figure 399 is a sketch of them. I endeavored to buy one of the quivers, but an offer increasing from one dollar to five hundred had not the slightest effect. To my astonishment, however, the Ainu took down one of the quivers, removed one of the arrows, and, after carefully scratching off the poison, gave it to me.

The storehouses in which they keep their dried and smoked fish and skins are built on posts four or five feet in height. In some instances a flaring wooden box was placed inverted on the top of the post in the same manner in which our corncribs

in New England are protected from rodents by tin pans on the posts. The types of these storehouses are seen in figures 400 and 401. Large wooden mortars, in which they pound rice, are seen in or about the house. The one shown in figure 402 is about three feet in height, shaped and hollowed out from the trunk of a tree. The Ainu boat dug out from a tree-trunk was different in form from the other "dug-outs" I had seen in Japan. The one represented in figure 403 was fourteen feet long, bow and stern alike, with the walls thin and very neatly made, as is much of their woodwork.

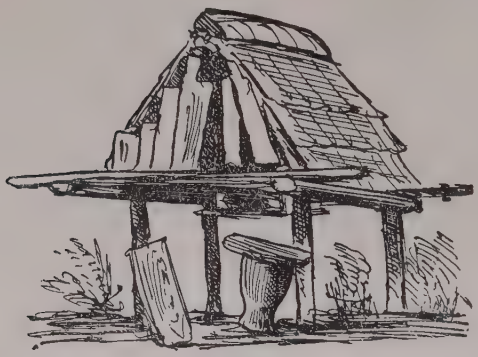


Fig. 400

Fig. 401

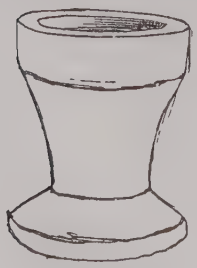


Fig. 402

At Shiraoi, where I made many Ainu sketches, we found many beautiful white snails clinging to the bushes. With the exception of one species the shells were light and delicate. The fresh-water shells are equally thin and some of the land shells are almost colorless. The absence of lime

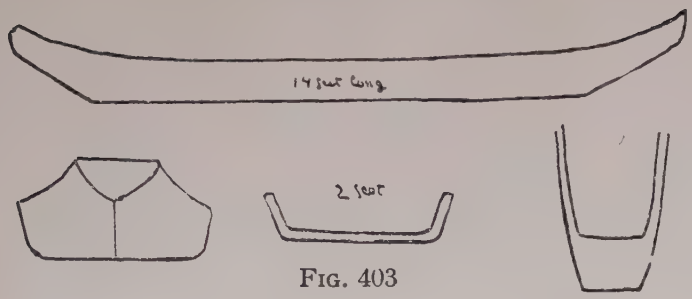


Fig. 403

in the soil is supposed to be the reason for the thinness of the shells. We could hardly tear ourselves away from the Ainu village the morning we left Shiraoi. It was most interesting roaming through narrow paths, some of them almost hidden by the grass and bushes, and finding, here and there, disposed in the most irregular fashion, the Ainu huts. Old men sitting at the doorway would greet us with the peculiar gesture of raising both hands toward the face and then bringing them slowly down over the beard as if stroking it; as children make the same gesture, it has nothing to do with the beard. The woman's salutation consists simply in slowly rubbing the side of her nose with the forefinger.

Fig. 404

If I could only draw a horse I could make an interesting sketch of our caravan. Figure 404 is a sketch of Professor Yatabe's assistant, which I made while riding behind him.

He was loaded down with botanical boxes and bundles, and shortly after making the sketch his horse suddenly kicked up in the air and off the assistant went, heels over head, to the ground, the heavy pack-saddle, tin boxes, and bundles making a clatter. The man picked himself up, shook himself together, and with the assistance of our Ainu leader got on his horse again. Some of the horses we have had are vicious brutes. The last one I had yesterday made me so lame that when we started off to-day I walked a distance of seventeen and one half miles before mounting. The road lay along the beach the entire distance.

Our caravan was led by an Ainu, a large, black-whiskered, hairy fellow with a mop of hair on his head a foot in diameter (fig. 405). A cloth was tied around his head to keep his hair in place and a peculiar Ainu design was wrought in the back of his garment. He sat cross-legged on his saddle and looked like a giant. This man accompanied the train to bring back the horses. To his horse was tied another horse carrying the two willow baskets containing specimens, clothes, etc., and to this horse was tied still another, lugging our cases of lager beer, given to us at Sapporo, which were rapidly diminishing as we went on. With Yatabe and his assistant, Takamine, Sasaki, and me, this made a cavalcade of eight horses.

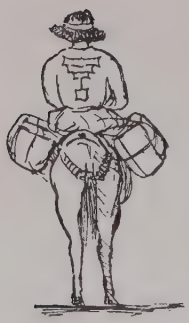


Fig. 405

We went rattling along the road, and a rattle it was, for with the wooden rollers on the cruppers and the other things dangling, we made a good deal of noise and dust as we trotted

or galloped along the white, sandy road. The beach seemed interminable. Suddenly, for no apparent reason, three of our horses ran away, and I was on one of them. It was in vain that we tried to pull them in. Sasaki was ahead, Takamine next, I last, and the rest of the cavalcade was soon left far behind and out of sight. Everything portable was shed: first hats; then strings and straps broke and tin botanical boxes, bags, and packages came off, one after the other, and the road was strewn for a long distance with these objects, which we trusted our men behind would pick up. As an indication of the progress I was making in horsemanship I managed to hold on to everything: my pith sun hat, my colored eyeglasses, and a cigar-holder with lighted cigar were undisturbed. Just before the runaway, Takamine had folded his red flannel blanket under him to ease the asperities of the pack-saddle. He was directly ahead of me, and as he bounced up and down, his black hair flying in the wind, his blanket became unfolded and, little by little, sagged on one side and finally came off in the road. Had I been an experienced horseman, I should have anticipated the shy that was sure to come. I did not, however, and was laughing at the way Takamine was bumping up and down on his naked saddle when my horse shied with such violence that I was nearly thrown into the road. With every jump of the horse, however, I little by little regained my seat. The wild dash for some miles ended as abruptly as it had begun: for, overtaking a large pack of horses that filled the road, our horses immediately came to a walk and joined them. They had been accustomed to travel with these horses and recognized the odor.

The Ainu pack-horse is an uncertain brute. He walks more slowly, I am told, than any other horse in the world, but I can-

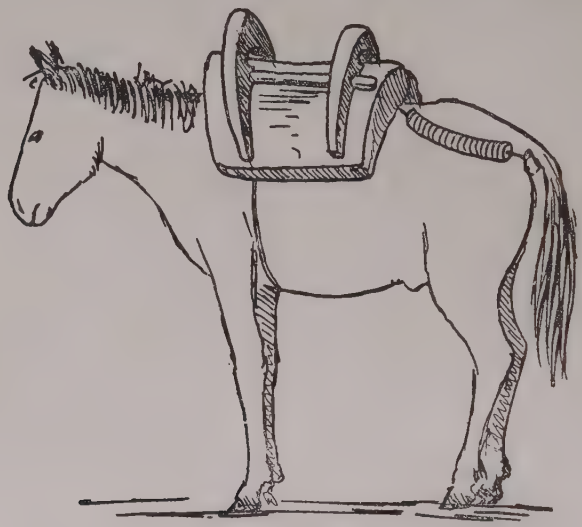


Fig. 406

not imagine any horse trotting more painfully or galloping more energetically than this Yezo breed. My experience in learning to ride would have been more agreeable if I could have learned on civilized horses. Figure 406 shows the typical Yezo pack-horse with the pack-saddle.

As we approached Mororan the evidences of upheaval could be plainly seen. The bluffs near the water were undercut to a height of several feet, as shown in figure 407. The soil seemed

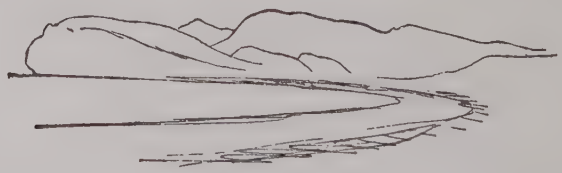


Fig. 407

to be composed of pumice which indicated former volcanic activity. In our long ride from Shiraoi, not a house was seen, and the only signs of man were observed in an occasional rude shrine, very dilapidated, though a few bunches of flowers in front showed that it was cared for in a way. The figure under a rough framework consisted simply of two stones, a smaller one representing the head, resting on a larger one. The head was covered with a cloth cap with long strings hanging down on each side (fig. 408). Before reaching Mororan the scenery became delightful. The low mountains and inlets of the sea and the Bay of Mororan, with its long, yellow beach, would have made a fine subject for a picture. Figure 409 gives a rough idea of the region. Near Mororan was a curiously shaped Japanese house, the roof unusually high, with the flat ridge covered with lilies, iris, and other flowers. The roof was thinly

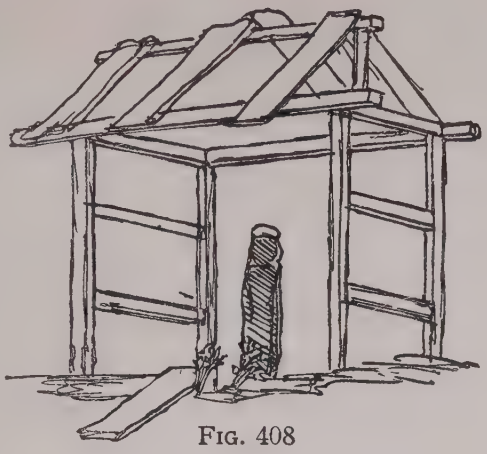


Fig. 408

Fig. 409

thatched, and the little shed-like roofs near the eaves were covered with round stones.[1] In our ride we overtook another pack of twenty horses, filling the road. Before we could get by them they turned into a narrow path. We were informed that that path was much shorter to Mororan than the regular road, so we turned in and followed the pack, Yatabe and I only, as we were far in advance of the rest. The path led to the top of a mountainous ridge, at places rocky and wet and at times very steep. I wondered what would happen if the horse slipped, for the path led along the side of an abrupt precipice and the path itself was sloping. After riding this way for half an hour we came to the highest portion of the ridge through a dense growth of oak and other trees. It was evening, and the delicious fragrance of the forest, the curious insects that I could actually clutch from the overhanging leaves, and the pack of odd-looking horses and odd-looking drivers as they rattled along in single file gave me a delightful hour, and I enjoyed every minute of it. There was only one place where I was in danger. Yatabe and I had got mixed with the pack in some way, and in one place where there was a sloping wall on one side and a steep precipice on the other, one of the horses endeavored to regain his place in the file by attempting to pass me on the inside. The driver was doing his utmost to hold him in, and I, realizing the danger, as he had two enormous packs on his saddle, hit him a sharp rap across his nose which checked him. It was impossible for me to hurry ahead, for the narrow path was only wide enough to ride in single file, and

[1] See *Japanese Homes*, fig. 41.

had the horse succeeded in his efforts my horse would have been crowded over the precipice. It was quite dark when we entered Mororan, a single long street bordering a beautiful cove, and hills and low mountains in every direction. We had made over thirty miles, of which I had walked seventeen and one half miles, had been run away with, and had had other experiences, with the result that sheer fatigue sent me to bed early.

The next morning we found it raining hard and no steamer going across the bay to Mori, where we had to take horses again for Hakodate. It gave me an opportunity to make a few sketches about the house. In the middle of the floor, both in the front and back part of the house, is a large, square enclosure filled with sand. These are the fireplaces and here everything is cooked. Figure 410 shows the kitchen of the inn. Overhead is a rack, hanging from which fish is smoked. Such a collection of teapots huddled around the hot coals would not be seen in a private house. Figure 411 represents a fireplace in the best room. The device suspending the tea-kettle was of brass and highly polished. A copper box is filled with hot water, and in this is placed a bottle of

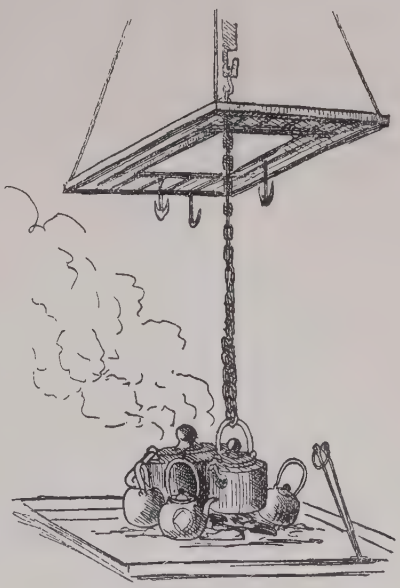


Fig. 410

saké to heat, as their rice beer is always drunk hot. The tongs are in the form of chopsticks united above by a ring, for if one gets lost the other would be useless. Most of the servants at the inn were men, and all of them wore their hair in old-fashioned style; indeed, it was a rare sight to see a Japanese without the queue. In Tokyo, on the contrary, the queue, though commonly seen in the farmer class and among the sailors, fishermen, artisans, and old men, is rapidly disappearing among the younger generation, and the students have entirely given it up.

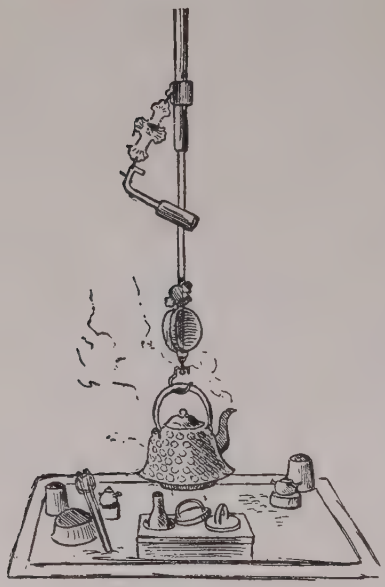


Fig. 411

Figure 412 represents the clerk busy all day long making up the voluminous bills for the guests. The length of the bill startles you, and yet, when the items are translated, you are greatly relieved to hear one and a half cents for this, one and three tenths of a cent for that; and finally the whole bill for supper,

Fig. 412

lodging, and breakfast, added up, amounts to less than twenty cents, which you pay without a murmur.

Figure 413 shows the attitude of a servant as he comes into your room to receive your order. It has taken a long time to get used to this, and even now I feel a repugnance to having any one humble himself before me in this fashion. The proper way in kneeling is to turn the hands inward, and as you see it often, you notice the failure to do it, as much as if one should use the left hand in shaking hands. Mr. Takamine, who was page to a daimyo, illustrated the proper way of bringing in a tray holding food. It is held with two hands on a level with the eyes, and on approaching the prince one should kneel and present the tray and then, still on the knees, move backward, and rising, back out of the room.

Fig. 413

One of the sketches I made while rainbound in the house was of a family at dinner (fig. 414). It is an interesting sight, though you may have seen it a hundred times in walking through the streets. The whole affair is so unlike our sitting in chairs at the table, each with plate, knife, and fork in front. Here they sit on the floor, the wooden bucket at one side holding the rice which is scooped out with a wooden spatula.

Fig. 414

In this little village of Mororan there is a well-furnished fire-engine house. Figure 415 is a rough sketch of its appearance. It is entirely open on the street and all the utensils immedi-

Fig. 415

ately accessible. A list of the objects was as follows: twenty-seven canvas buckets; twenty small wooden buckets; six large buckets; two ladders; six poles; rope, chain, and hook; two lanterns on long poles.

The fire companies always carry the lanterns on long bamboo poles. Figure 416 shows the lantern and the hook, which last is attached to a long chain for tearing down buildings. The people are very careful about fire, as the buildings are of wood with most inflammable roofs of thin shingles or thatch. Lately, in the larger cities, municipal laws prohibit the use of these inflammable materials for roof coverings. In Mororan a boy goes through the long street at stated hours every night having tied on behind him three hardwood boards of varying

Fig. 416

sizes which clap together with a loud noise at every step he takes. There is a rattle, rattle, rattle as he goes by (fig. 417). This is to warn the inhabitants to look after their fires and see that they are extinguished; it indicates also that the boy is attending to his duties.

Fig. 417

Sunday morning we were up at half-past two to eat our breakfast and to pack, as the boat was expected to start at four o'clock. It did not leave the wharf till six, but we got aboard before the sun arose, and such a beautiful sight as the bay presented, the shore fringed with mountains! Our road led along a high bluff and we looked down into the deep gloom of a valley where the bright red fire of a forge shone out. The sun was just behind the clouds, the water calm, and a picturesque crowd of Japanese was going along the road with us. It was enjoyable being the only foreigner about, nor had I seen one

Fig. 418

during my long trip, except at Sapporo, and the German doctor we had met. Figure 418 is a hasty sketch of Mororan from the boat. The little steamer we were on was crowded with Japanese. Their pleasant courtesies, which were interesting to watch, we knew would soon wither as we rounded the headland into Volcano Bay, and within an hour they were all dreadfully seasick, as the boat rocked violently. Figure 419 is an outline of the headlands as we came out of Mororan harbor. In this sketch you will notice how the rocks have been undercut at the waterline, an indication of upheaval. The whole country is volcanic and unstable. I made a few sketches from the steamer, but found that my condition was approaching that of the other passengers and so sought the cabin for a little rest. When we got near Mori, our landing-place, a boiler flue burst, nearly extinguishing the fire, and we lay at the mercy of the winds and waves for some time. Had a storm come up we should have been helpless. The wind was blowing hard; it was raining, and it was an aggravation to be so near land and not be able to get ashore. Finally, we got under way and at noon landed at Mori.

Fig. 419

Figure 420 is an outline of Usuyama from Mororan harbor,

and figure 421 shows the volcano Komagatake, its peak hidden by steam that continually arises. This mountain is easily seen from Hakodate. Its height is nearly four thousand

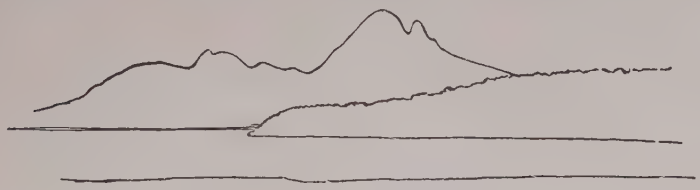


Fig. 420

feet and twenty-two years ago it was in violent eruption. After lunch we engaged our pack-horses, Yatabe and his man remaining to climb the volcano, and Sasaki, Takamine, and I going on. The ride over mountain spurs and through a wild region was exceedingly picturesque. The mountain peaks were obscured by mists and at times it threatened rain. We

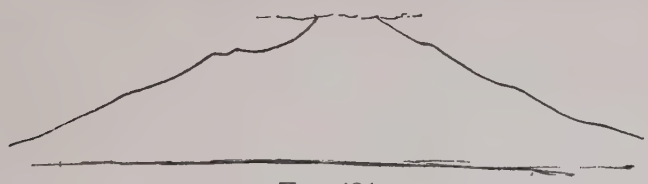


Fig. 421

passed a beautiful lake, but could not stop, as it was after two and we had thirty miles to make to reach Hakodate again. The road was being repaired the whole length and we had to be on the lookout all the time. After a ride of several miles from Mori we entered a mountain pass. Here the scenery was delightful. At one place the rugged and conical peak of the volcano suddenly loomed above the clouds, the peak looking ten miles high, its sides being so precipitous. It had been rain-

ing for some time and had suddenly ceased, and the air was very clear.

Shortly after this we were going down the other side of the pass at a good trot, Sasaki on his hard pack-saddle just in front of me. I had been trying to fix the end of my umbrella in my shoe as an easier way of carrying it, but the joggling of the horse prevented me. Leaning over to see the shoe I again attempted rather impatiently to jab the point in the shoe, when, in some way, I missed the mark and the umbrella hit the horse under the belly. He instantly shied and I was thrown to the ground striking on my head and shoulder. I remember only scrambling out of the way of his hoof and getting my foot out of the stirrup, as I had fallen on the right and dragged the left stirrup over the saddle. Looking up, I found Sasaki on the ground also, and supposed he had jumped off to assist me. It seems, however, that his horse shied too, and he had been thrown off his pack-saddle and landed on his knees in precisely the same position in which he had rested on his saddle, so instantaneously had the horse shied. Our horses went tearing down the road and we after them. It meant walking to Hakodate if we lost them, but shortly they encountered a pack of horses coming up the ravine and their rushing in among them made a flurry of kicking and snorting. Despite this we pushed in among the pack, bumping against their heavy loads, avoiding kicks, and finally secured our horses. Sasaki was lame for six months, and I slept on my left side for several weeks.

When we got out of the pass, at four o'clock, the mountains of Hakodate were in plain sight, yet it was nearly midnight

before we reached the town. The last two miles we walked, since the horses stumbled at every step over piles of dirt or rocks in the road, and in our walk we were at times in the ditch beside the road, at others sprawling over heaps of gravel that had not been smoothed down.

CHAPTER XIV

HAKODATE AND THE RETURN TO TOKYO

SINCE our return to Hakodate we have had a number of dredging trips in Tsugaru Straits, in one of which we went away for the day taking a fine lunch, Bass's ale, and other good things. At one place Takamine and I landed to walk to a certain point about six miles in search of ancient shell heaps. We could see our little steamer ahead of us, but before we got to the point a gale sprang up, and though we waved our handkerchiefs till our arms were tired, they missed seeing us, and we had the misery of watching the boat head for Hakodate leaving us fifteen miles away. At a small fishing village we got a bowl of thin fish soup and poor rice, thinking of the delicious lunch aboard the vessel. Here we hired two pack-horses with the native saddles, and these were so intolerable that part of the time we walked, reaching Hakodate at night tired out and lame enough. In coming back we had a magnificent view of the volcanic mountain, its outline quite different from that seen at Hakodate. The form of the crater could be clearly

FIG. 422

made out, the slopes a light brown color and rich in the sunlight. Figure 422 is a rude sketch of its appearance.

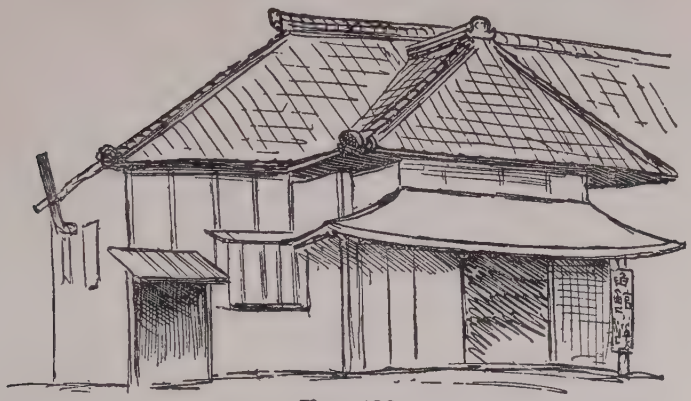


Fig. 423

Figure 423 gives another sketch of our laboratory from the front. We are packing, preparing to take our long trip

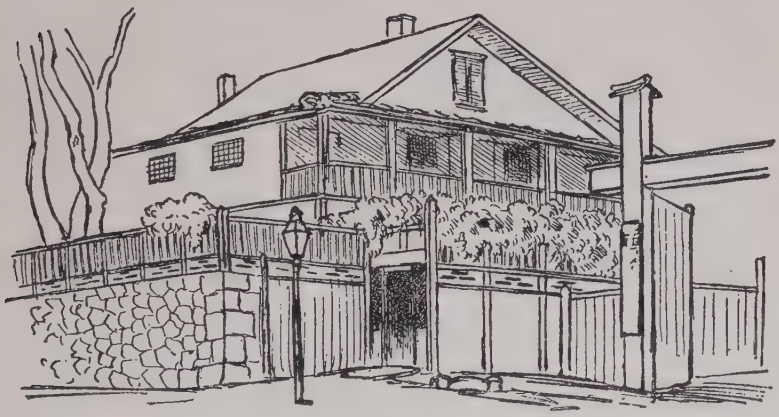


Fig. 424

across the straits and a twelve days' journey from Aomori to Tokyo. Figure 424 shows the house I have lived in since I have been in Hakodate. Next to it is the temple gate, and

it has always been interesting to see the people going in to worship, or even bowing their heads in prayer as they passed the entrance. To-day I noticed that the girls and little children were finely dressed, and that a great many flowers were being brought into town, particularly a sort of bluebell. This evening a great many people were going into the temple, and I went into the temple yard and watched the people as they ascended the broad steps. It was pleasant to see them, old and young, as they walked up, first leaving their clumsy wooden sandals at the foot of the stairs. When at the top, their figures, brightly clothed, stood out in sharp contrast to the darkness of the temple within. After enjoying this sight I came back to the house, when Mr. Dean, the Danish consul, called out from the veranda that I had not seen half of the sights and told me to go back of the temple up the hill to the cemetery. It was an interesting walk through the temple grounds to the cemetery above, which was in the midst of a sombre forest of tall cedars, and here the people were making their offerings to the dead. They first smoothed a place on the ground in front of the gravestone, then spread clean white sand which they had brought, and on it placed flowers in bamboo tubes which stood like little vases, at the same time laying down a few reddish-colored rice cakes, and in some cases quite a feast of offerings. Here an old woman muttering a prayer was busy smoothing the ground around a stone monument and tastefully arranging a few flowers. It was a charming sight, the quiet shade of the great trees, the gray-colored stones, square and dignified in design, and the hundreds of brightly dressed

children fluttering about like brilliant butterflies. It was interesting to find that these people too had their religion; that they pray just as fervently and in their devotion go even beyond the Catholics. There is always one service between five and six in the morning, and at this early mass infirm old men and women are borne on the backs of some sturdy relative. In the street as they pass the temple the people always bow very low and in many cases utter a prayer.

Since our return across the island we have had some remarkable dredging, getting many Brachiopods, and have made some interesting studies of the living creature. On the last day's dredging the authorities provided a much larger steamer (fig. 425) and we went out to the deeper parts of Tsugaru Straits. Everything has been done for us on the part of the authorities, and all our success in collecting is due to their courtesies. In returning overland I decided that Professor Yatabe, Mr. Sasaki, and Mr. Yatabe's gardener should accompany me, while Mr. Naniya and Mr. Takamine should go down the west coast of Japan to dredge at Niigata, while Mr. Tanada and my attendant and the servant of the University should return with the collections by the steamer to Yokohama. Curiously enough, the three steamers for these various destinations started the same day, August 17. We

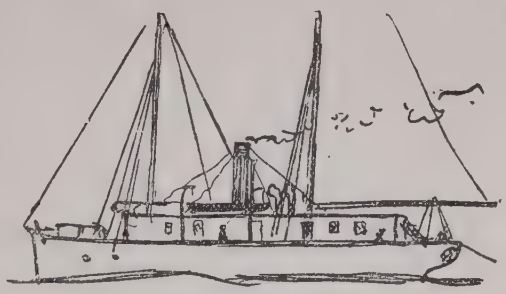


Fig. 425

had a pleasant sail across the straits and finally entered a vast bay. Sailing into this we passed the entrance of another immense bay, at the upper end of which no land could be seen. The sea was perfectly calm, and we were all day sailing from Hakodate to Aomori, a distance of seventy miles. The town is long, low, and flat; beyond observing these facts we noticed nothing. At six o'clock the next morning we started on our long jinrikisha ride to Tokyo, a distance of over five hundred miles, hoping to accomplish the journey in ten days, though we were told that fifteen days would be required.

We have passed at intervals a curious sign which seems peculiar to the north of Japan (fig. 426). It is made of spruce or cedar twigs bound together in a big ball, two feet in diameter, and is the sign of a wineshop. The saying, "Good wine needs no bush," may have the same significance in this country. Our first day's ride was over a rugged and mountainous road, and we had to get out and climb many a steep hill to ease our jinrikisha men. The scenery was very beautiful, and we had fine views of the great bays and curiously shaped mountains. Toward night of the second day we had to take pack-horses to cross a precipitous range of mountains. It was a ride of fifteen miles. Our horses were led by old men, who kept up a continual banter and chaffing with one another the entire way. The endurance of these men is amazing, even more so than that of the Tokyo workmen. They were fifty or sixty years old, at least, and

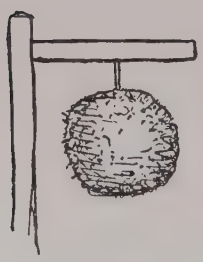


Fig. 426

while climbing the most precipitous slopes, in some cases apparently pulling the horses along, they had breath enough left to joke and chaff continuously. At the top of the mountain pass I dismounted and walked a long distance to enjoy the grand views. In one place we stood on the edge of a precipice said to be eight hundred or one thousand feet to its base. The face had been worn away by a river whose grand curve disappeared beneath our feet hidden by the overhanging edge of the precipice. We passed an old blind man leading a horse down the road or path, which was rough, crooked, and in places very steep, and yet this old man seemed to know every part of it.

In the houses we pass I notice a curious basket cradle (fig. 427), a thick, circular basket of straw, and the baby warmly stuffed into it.

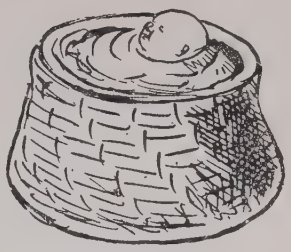


Fig. 427

Having crossed the mountainous range we came to a long, level reach of country, not unlike the rolling prairie land of Iowa. Japan looks very small on a map of the world and yet we were an entire day crossing this prairie. The villages were few and far between. Every settlement we passed through had its peculiar features, some of the places shabby and poor, while others were very trim and evidently prosperous. We neared another range of mountains where the villagers had managed to conduct a rapid mountain stream through the middle of the main street. The street was cleanly swept and in some cases the stream was bordered with beautiful little clusters of flowers or oddly shaped

dwarf trees, and at intervals pretty little rustic footbridges spanned the stream. On the level plain I noticed poles about ten feet high, which appeared to be telegraph poles, except that there were no wires and the poles were a little farther apart than telegraph poles. We were told that these were erected in order that the traveler in winter could find his way along the road, as all signs of the road disappear under the deep snow: a good idea, which might be followed in our country in some places. The late storms had done a great deal of damage. In many places the bridges had been washed away, the roads had been overwhelmed by landslides, a number of which we passed around. In one place a house, partially wrecked, was standing in the middle of what appeared to be a small stream, but which had been a raging torrent.

The fatigue of traveling from morning till late at night prevented my making many sketches on the trip. The village of Fukuoka I recall as a very beautiful place with its row of little gardens in the middle of a wide main street and the street cleanly swept. The people in this region have light-brown eyes and are better-looking than those farther south; the children, with few exceptions, are unattractive. In many places along the road springs of delicious cold water come out of the rock, and neat little stone troughs had been placed to catch the water for the comfort of horses and bulls. The rarity of foreigners in this part of the country was indicated by the way the horses shied and kicked as we passed them. Many of the old customs are still kept up. For example, in no case did a man in meeting us pass me on horseback, but

in every instance the rider dismounted and waited until we had passed. When I first noticed this, I thought the horses were afraid and that the men dismounted to hold them, but I learned that it is an old custom that the lower classes never ride by a superior when on horseback. It was somewhat embarrassing to see a number of men, when they came in sight on the road, promptly dismount from their high pack-saddles and not mount again until I was well by. On the road I met men in the ancient form of dress such as one may see only at the theatre.

A curious device for irrigating the rice-fields is shown in figure 428. On the banks of a swift-running river a water wheel was adjusted and was slowly turned by the current. On the sides of the wheel were fastened square wooden buckets; as they dipped into the stream they became filled with water, and as the wheel rotated the water was spilled from the buckets into a trough which conveyed it into the fields beyond.

Fig. 428

Whenever we rode through a village in the daytime it seemed deserted. A few infirm old men and women and little children were seen, but everybody else was at work in the rice-fields or on the farms or busy with duties in the house. It illustrates the universal industry of the people. Everybody works; all seem poor, but there are no paupers. The many industries, which with us are carried on in large factories, here are done in the home. What we do by the wholesale in the factories they do in the dwellings, and as you ride

through the village you see the spinning, weaving, the making of vegetable wax, and many other industries. In these operations the entire family is utilized from a child above babyhood to blind old men and women. I have noticed this feature particularly in the pottery industries in Kyoto. I passed one house where the loud pounding of wooden mallets attracted my attention. The people were engaged in making vegetable wax, which is derived from the seeds of some species of sumac. From this wax the Japanese make their candles, and tons of it are sent to America for use in the manufacture of cartridges. When at home last year I visited the cartridge factory in Bridgeport, Connecticut, and Mr. Hobbs, the superintendent, told me they were making millions of cartridges for the Russian and Turkish armies, and that Japanese vegetable wax was used to coat every cartridge. Here in the north of Japan the making of this wax was going on as in other parts of the Empire. The seeds are gathered and reduced to a powder by a triphammer; the powder is then heated in a furnace and put into a stout bag, made of strips of bamboo, which is then placed in a square hole in an enormous beam of wood. A wedge is placed on each side of the bag, and two men with vigorous blows of long-handled mallets drive down the wedges, squeezing the fluid wax out of the

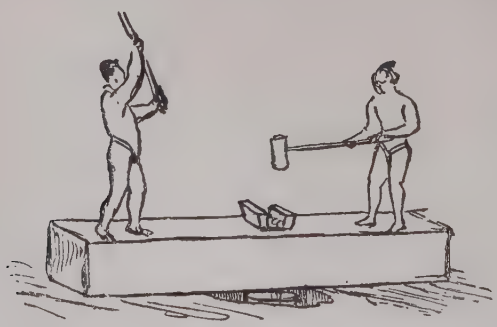


Fig. 429

bag, which runs in a stream into a bucket sunk into the ground below the hole, as shown in figure 429.

The ridge-poles of many of the roofs in the north of Japan are covered with red lilies, and a pretty sight it is as one rides through a village to see the crests of the houses flaming with red. Around Tokyo the blue iris seems to be the favorite flower for this decoration. One has no idea how beautiful these roofs appear: grand old thatched roofs, high and broad, with a splendid sweep to the eaves and surmounted by a waving fringe of red lilies. The eaves of these thatched roofs are often three feet in thickness. The taste of the people is shown in using alternately dark straw and light straw in thatching, so that when the eaves are evenly trimmed there are exposed alternate bands of dark and light colored straw (fig. 430).

Fig. 430

Last year I made a record in my journal that the farmer cut his monogram in the end of the ridge and painted it black; it was a natural inference seeing this gracefully written Chinese character. Through the region in which we are passing the same initial is observed, and Professor Yatabe tells me it is the Chinese character for water. He thought there was some superstition that this character might keep away fire; absurd, perhaps, but no more ridiculous than to see an intelligent man rap wood after some statement or to nail a horseshoe over the door.

One constantly notices the care taken to give comfort to the horses. A simple device that we might follow is to suspend a broad piece of cloth under the belly of the horse. The constant flapping up and down drives the flies away from that region of the body most difficult to reach.

Fig. 431

The lacquer trees we pass have their trunks curiously marked with cuts, from which the sap is scraped by men who collect it (fig. 431). The trees appear as if they had been purposely ornamented with tattoo marks.

Along the road the Government is laying a telegraph line which is to run the length of the Empire. It was interesting to see the thorough way in which the work was being done. The trees to make the poles, instead of being cut a foot or two above the ground, were cut close to the roots, so that the base was very wide, and this part was charred to preserve it. This wide base gives it a much firmer hold in the ground. The top of the post was protected by a pyramidal piece of hardwood which sheds the rain (fig. 432).

Fig. 432

In a number of places in the northern part of Japan I noticed at some distance from the village, on each side of the road, a large mound, and on each one a huge tree of great age. We were told that they marked the boundary between villages, or towns. At intervals along the road little booths were erected where

melons were sold (fig. 433), a fruit not unlike our cantaloupe, but coarse in fibre and good only for its juice, though the same fruit about Tokyo is delicious. The interesting feature about these booths is that in most cases there was nobody in them; the prices were marked on the melons, a box with a little money in it rested beside them, and one could buy and make change! I was far ahead of my companions, enjoying the freedom and delight of walking in a strange country unattended. At one of these booths I stopped, being very thirsty, and wished to purchase a melon, but could see no one in attendance nor any one in sight, and so had to wait till Yatabe came up, when he explained that the man had left his melons and a box of change in the morning and was off to work in his rice-fields. I could not help wondering how long the rickety booth would remain standing in our country, to say nothing of the melons and change.

Fig. 433

After being ferried across a river and walking over some fearful washouts along the road, we approached a village. It was nearly dark, and we passed a great many people coming from the village, nearly all of whom were men more or less hilarious with saké. I never passed so many people in

such a condition before. They came along in groups of a dozen or more, talking, laughing, singing, and a few staggering. Something unusual had been going on. In many cases we had to walk through a crowd of them, as the smooth parts of the road were very narrow. The sight of a foreigner was a great novelty to them and they stared continually. When we reached the village we found there had been a wrestler's exhibition, which accounted for the crowd. I make a note of this experience to ask where in our blessed country would a foreigner of another race pass crowds of men more or less affected by liquor and fresh from an animating exhibition of wrestling without receiving some slurring word or gesture?

When we got to the principal inn, every room was filled, and what was more, after an hour's hunting among all the inns of the place, big and little, no accommodation was to be found. A company of two hundred soldiers had arrived only a few hours before and the officers and many of the men had filled the inns. So we sat there in the dark, ravenously hungry and tired out, while a native hunted up some prominent man of the village to whom our plight might be explained and who might help us to find some private accommodation. There is a law in Japan that a foreigner shall not stop at a private house, and we were in despair. Finally accommodations were found in a private house nearly opposite the crowded inn where we were resting — a large room, beautiful and clean, absolutely free from fleas, conditions which were a great luxury, as I had a hundred bites from these pests already. A delicious supper was given us, and the next morning we were off at four, first, however, endeavoring in

vain to induce our host to accept something for his hospitality. Besides the countrymen still lingering in the village, there were the soldiers loitering about after their long march, but I do not recall a hostile look or an impertinent gesture. I was hundreds of miles from an American consul and with only two attendants.

In one village at which we stopped I roamed back of the town to find something new, and in a house noticed hanging over the central fireplace a big cushion of straw, into which were stuck many little sticks, each one having upon it a little fish which was thus smoked. The contrivance was simple and yet effective. The Japanese are fond of smoked trout, and as fast as they catch them they spit them on long, slender sticks of bamboo which they thrust into the cushion, as in figure 434.

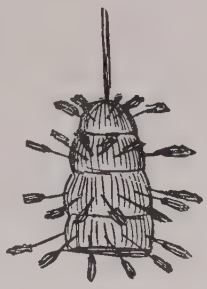


Fig. 434

A curious way of doing up eggs for transportation is shown in figure 435. The eggs are bound together in straw like peas in a pod and can be carried, hanging down in the hand.

Fig. 435

After leaving Fukuoka we ascended rapidly; in fact had a hard climb in reaching the crest of a high range which we finally attained. The crest had a deep cut through it to lessen the grade. The rock seemed to be a light sandstone of which the mountain was composed. A sketch of the cut is given in

figure 436. The stratum dipped slightly to the west and was filled with fragments of shells and Brachiopods looking precisely like those species I had dredged in Tsugaru Straits. The deposit must be very new geologically, and illustrates

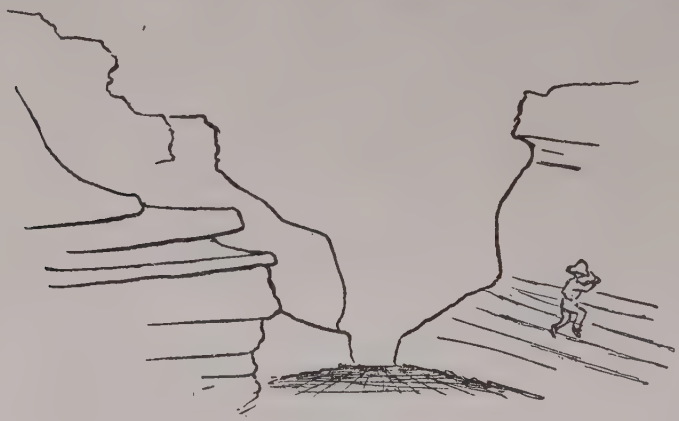


Fig. 436

how recent and profound are the changes which have taken place in the northern part of this island. This region, judging from the fossils, was at one time thirty or more fathoms below sea-level and has been elevated two or three thousand feet within recent geological times.

We entered Morioka, a large, flourishing town, by a narrow street lined on both sides by houses rather close together

Fig. 437

and by gardens. The hollyhocks in great profusion were peeping over light bamboo fences. The houses, all with gable ends to the street, were heavily thatched, and the whole place had an air of thriftiness. On our way to this town

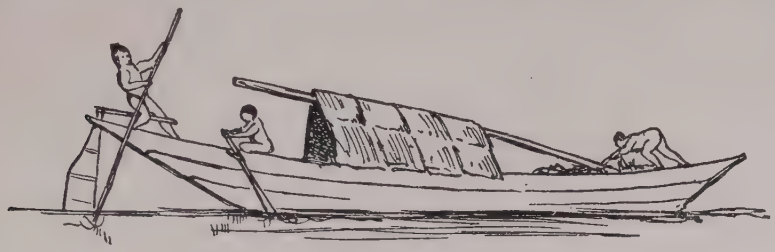


Fig. 438

we got a fine view of Ewatayama, or "Namboo Fuji," as it is called, because it resembles Fujiyama and rises from a region called Namboo (fig. 437). At Morioka the river is quite wide, and here we had to take a boat, and to get one we were directed to a lumber yard on the banks of the

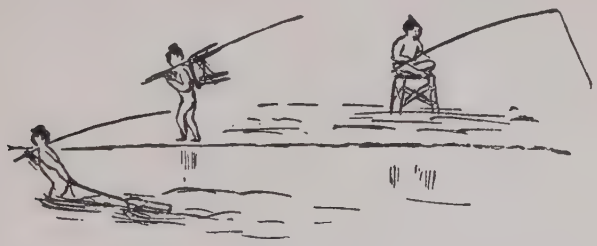


Fig. 439

river. The office was two stories in height and the rooms, as well as the sanitary arrangements, were immaculate in their cleanliness — and this in a common lumber yard! While negotiating for the boat and crew a little lunch with tea was offered us from the daintiest of dishes. We stopped but a

short time at Morioka, laid in some fruit and candy, and at noon started for a sail down the Kitakami River to Sendai, a hundred and twenty-five miles. The boat we engaged was different from the boats we saw last year on the Tonegawa; the stern was square and high and the bow long and sharp. Fig-

Fig. 440

Fig. 441

ure 438 is a sketch of the boat with one man rowing, two men poling, and the fourth member of the crew sound asleep. The rudder is held in place by a miracle; at least the bearing is only three inches wide and apparently hangs on nothing. In the centre of the boat was a square area carpeted by straw mats, and here we were to eat and sleep for a few days more. Heavy rush mats formed a roof over our heads. The river was sluggish, the current helped but little, and the crew were a good-natured but lazy lot of fellows who had to be continually urged to hurry up.

On the banks of the river were men fishing. So used are they to sit on their legs at every form of work or pleasure that these fishermen had light bamboo tables upon which they squatted on the shore or in the river, and we saw them either on their tables or wading along with their stands on their backs. They have two hooks on their line on one of which is a live fish for a decoy. They have a floating box in which they keep the fish, for they sell them in the market alive. Figure 439 is the roughest possible sketch of the fishermen. Up to eleven o'clock at night we were carried along by the current, sluggish as it was, but as dangerous rapids were ahead and the moon was not up the crew would not proceed. So we pulled up at a little village and patiently waited for the

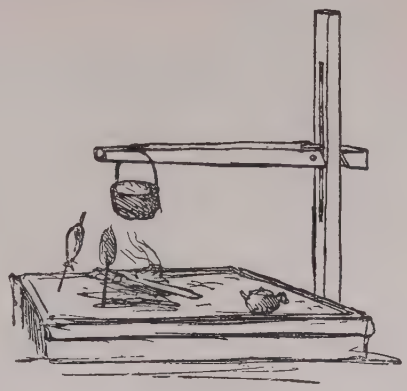


Fig. 442

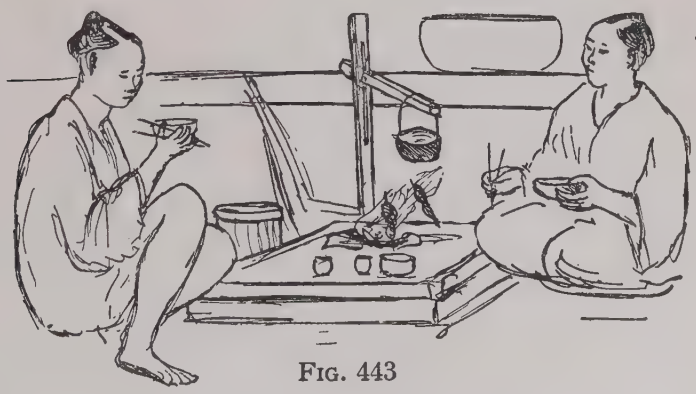


Fig. 443

moon to rise, which it did at two o'clock, and we got under way again. I sat up till we passed the rapids and then lay down on the hard floor with a Japanese pillow and slept

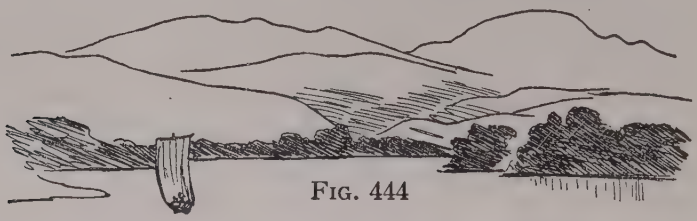


Fig. 444

soundly till daylight. Figure 440 shows one of the crew smoking, with a cloth tied over his head like a bonnet. Here I may mention the fact that in Yezo, even on hot days the country woman ties up her head and face in a blue cotton cloth so that in some cases only the nose is visible. Figure 441 is another member of the crew.

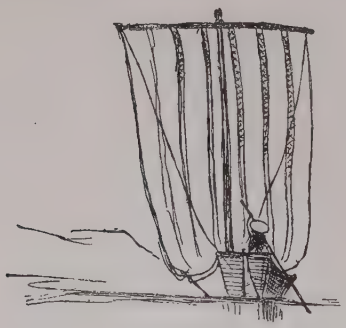


Fig. 445

The next morning we were up bright and early and enjoyed the delightful landscape and the interesting objects along the shore. After the toughest experiences on horseback and the roughest jinrikisha travel, it was a pleasure to float along without jolt or care and to beguile ourselves by watching the crew, the river, the shore and

Fig. 446

landscape beyond. Our kettle was soon boiling and rice and fresh trout gave us a good breakfast. Figure 442 shows our

Fig. 447

fireplace on the boat, and figure 443 is a suggestion of the appearance presented by two of our crew as they were taking their rice.

The scenery on the river was beautiful. Namboo Fuji was in sight the entire day (fig. 444). We dozed under the matting and kept out of the hot sun as much as possible. The only water to drink was from the river and it was lukewarm and very dirty. Figure 445 is a sketch of our boat from the stern. The sail, as before described, consists of strips of cloth laced together leaving quite an interspace between the strips as shown in the

Fig. 448

sketch. The boatman's song on the river closely resembled the boatman's song in Hakodate. Figure 446 is the song

Fig. 449

written for me by Professor Fenollosa, the first song being the Hakodate song, the second stanza being the variant sung by boatmen on the Kitakami River. At times boatmen

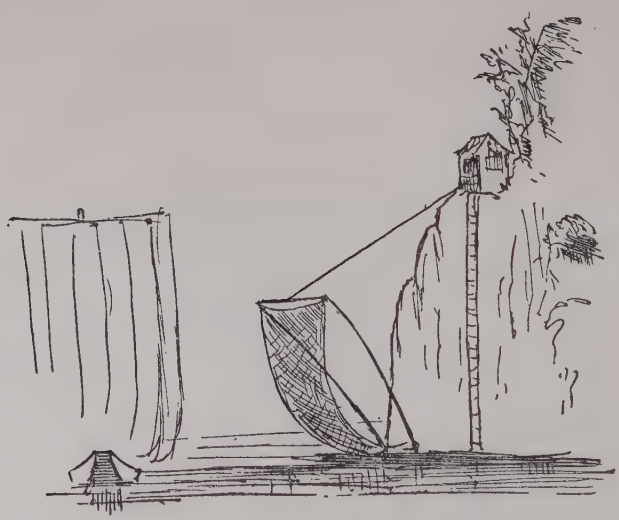


Fig. 450

would come out to sell us fish, and while trading with them we would all drift together downstream. Figure 447 shows our boat's crew rowing and poling. Figure 448 is a sketch of one of our boatmen on the third day of our voyage. His queue had become demoralized and was tied in a knot on top of his head; his shaved pate and chin were bristling with a new growth of hair, and his nose was very red from sunburn. The first thing he will do as soon as we land will be to hunt up a barber, get a shave, and have his queue rebuilt. Figure 449 represents another type of river boat, with flat bottom and broad stern, a freight-carrier. This boat is working its way up the river, and a man under the stern is pushing the boat off some sandbar.

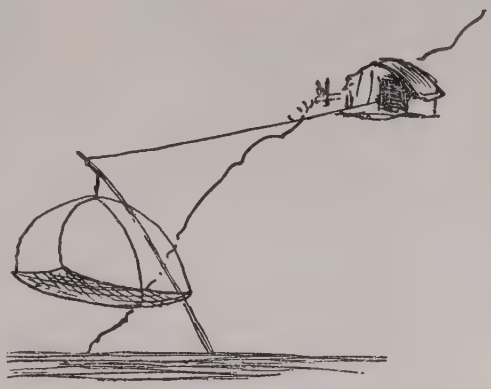


Fig. 451

At one place we landed at the foot of a precipitous bluff and started off, despite the hot sun, to collect land snails, and in a short time we had found eight species new to our collection. On these precipitous bluffs fishermen establish their stations. The little hut for this station (fig. 450) was thirty feet above

Fig. 452

the river, and by a long rope the fishermen could pull up their nets to see if any fish were caught. A ladder runs up to the hut, which was of the rudest description. Figure 451 illustrates a type of net. Along the whole length of the river one notices these fishing stations.

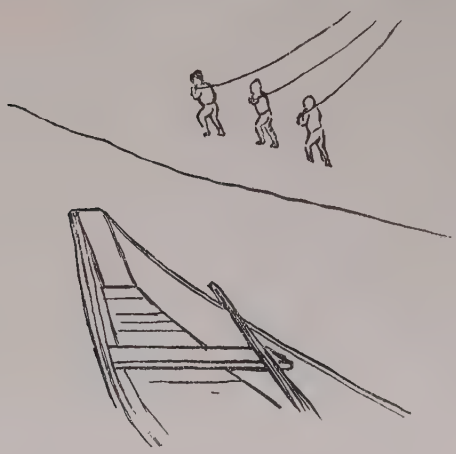


Fig. 453

As we approached Sendai Bay the river became wider, less rapid, and not so clear. During the last day of our sail it was difficult to drink the water, it was so thick with sediment. Along the shore people were seen washing clothes, or themselves. One little sketch was made which illustrates the tameness of crows. A woman was evidently cleaning fish over the side of a boat, and within a few feet of her a crow had alighted and was perched on the boat watching the operation (fig. 452). As we neared the

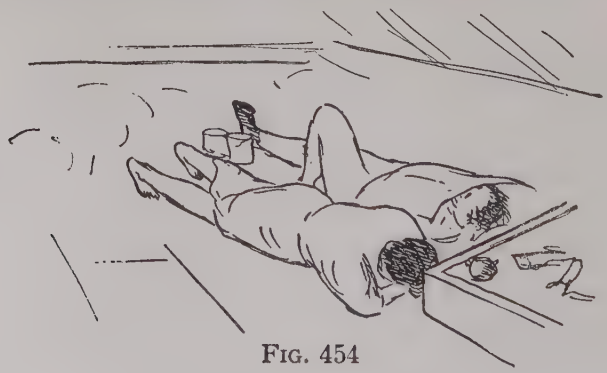


Fig. 454

mouth of the river the wind began to blow upstream and our boatmen got out on the bank and towed the boat for several miles (fig. 453). This they did by hoisting the mast, attaching a rope to the top of it, and pulling the boat along. One man remained on the boat and with a long bamboo pole kept the boat from running ashore. It was a lazy experience — imprisoned in a boat for three days — and we dozed and slept much of the time. In the sketch (fig. 454) one

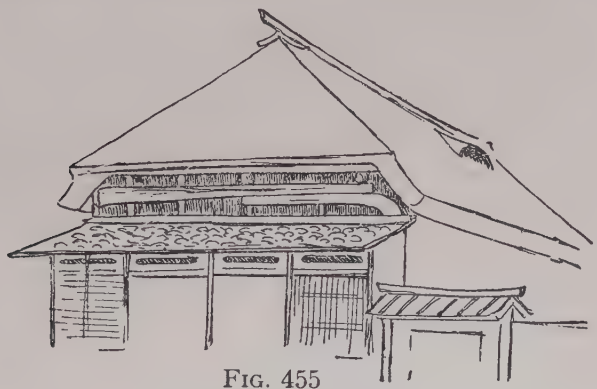


Fig. 455

of us has a sheet of paper over his head to keep off the mosquitoes. After getting on in this slow way for several hours we concluded, in order to save time, to land at the first village and take jinrikishas to Sendai. I was glad we did, for we got into a village where the sight of a foreigner must have been a great novelty — if, indeed, they had ever seen one before. The people, young and old, flocked about us in great crowds, and at the inn where we stopped they filled the yard, clambered on the fence, and stared at me as if I had come from the moon. Every now and then I would make a rush at them, a good-natured one, of course, and they would

run clattering away on their wooden clogs as if the devil were after them. When we started in the jinrikishas the crowd followed along by the sides for some time looking at me with the greatest curiosity and interest.

I noticed quite a change in the architecture of the towns through which we passed and a curious arrangement of beams in the gable end of the houses. The one shown in figure 455 was typical and reminded me of the picturesque architecture of Switzerland. The wood, in its natural condition, was, of

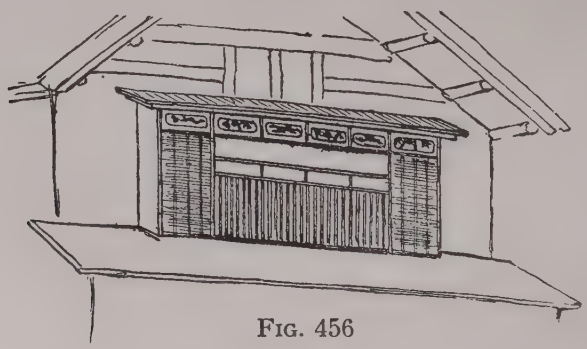


Fig. 456

course, gray with age. We came along at such a rapid rate that I had but little time to sketch, but I noticed all along the way the fine woodwork on the houses. A long bay window over the first story was often of the most delicate woodwork with perforated designs of pine, bamboo, or other motive, as seen in figure 456.

In some of the villages through which we passed, the main street was almost entirely spread with mats on which the people were drying indigo leaves. Women and children were stripping the leaves from the branches brought in by others, and their hands were stained blue by the work. So filled was the

street with these mats and leaves that our jinrikisha would run over them. As we neared Sendai the men seemed to wake up and run faster; the roads improved, and it was a great luxury to move rapidly after the slow monotony of the boat. When we came to a village the men would tear through it like mad, yelling for people to clear the track, and everybody would rush into the street to see what sort of a show was going by. The people are as curious as are the Yankees. Whenever I threw away the end of a cigar, some one would pick it up and tear it apart to see how it was made.

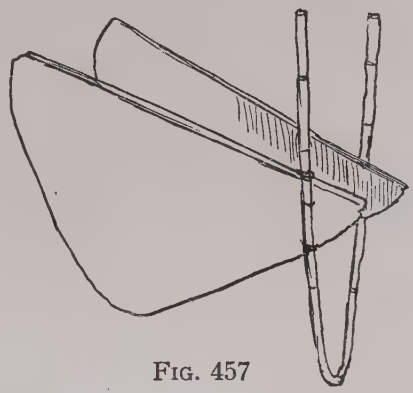


Fig. 457

Figure 457 is a curious fan about three feet high that is used to fan dust out of rice or to winnow the chaff out of grain. A man holds the upright handles, which are made of a continuous piece of bamboo, and moves his hands in and out as if he were working a pair of bellows; this movement opens and closes the fans, which are shaped like butterflies' wings.

The jinrikishas were single ones and narrow, and one had to keep awake to balance them as they were high and top-heavy. It was misery to have to keep awake for fear of upsetting. Ahead of me was a Buddhist priest in his beautiful robes, his head drooping in sleep. I knew he would go over, and I got wide awake watching him for a mile or more when over he went into the wet gutter beside the road. The jinrikisha man was also thrown, but picked himself up and

stood with his hat off bowing again and again in apology. I could not help laughing, and when the priest noticed me, he laughed in sympathy.

Toward afternoon we found it would be difficult to reach Sendai that night, so we stopped at Matsushima, a famous resort. It was delightful to feel the salt breezes again. The beach was covered with seaweed, as the tide was out, and the odor was delicious. We stopped at a pretty little tea-house on a promontory partly hidden by trees. As we rode into Matsushima the road led around bluffs in which were caves of various sizes, all bearing the marks of former erosion of the sea. This wearing action was very curious. The upper layers of rock overhung the lower portion resembling certain forms of snowdrifts. Figure 458 is a fair representation of the form these rocks assume, whether on land or sea, for the Bay of Sendai has hundreds like the one figured. Some of these islands are not over twenty feet long; others are much larger, standing twenty feet above the water. It is a most singular effect and shows the great denudation and recent elevation that have taken place.

Fig. 458

We were up before daylight the next morning and reached the city of Sendai by nine o'clock. To be riding through crowded streets seemed a little like Tokyo. Two of our men

were left at Matsushima to make collections, and Yatabe and I started for the long ride to Tokyo. We left everything we could spare so as to travel light, and had two men to a jinrikisha. Yatabe endeavored to telegraph to Tokyo, but found to his surprise that all telegrams from private persons were forbidden. This worried him a good deal, for various inquiries failed to bring any explanation of this edict. Had a revolution broken out in Tokyo? Was there an anti-foreign demonstration? Nothing could be learned, and so we started for a two-hundred-mile ride overland to Tokyo.[1] It seemed to me, after this hold-up on telegrams, that every Japanese we passed looked at me suspiciously. After leaving Sendai we rode for two hours before we learned that we were going in the wrong direction. We were then compelled to go back to Sendai, losing half a day by the blunder. Here we had dinner, and with a new team of men rode until ten o'clock at night when we reached Fujita. All the tea-houses were full, so we were compelled to sleep in an obscure inn with poor mats, poor food, and fleas in plenty, but we were too tired to complain.

The next day we had to make seventy miles to Shirakawa in order to reach Utsunomiya the next night, so we started before sunrise, and before night we were almost paralyzed with fatigue. I remember that at noon we stopped at a very pretty tea-house for something to eat. The garden behind, though only ten feet in depth, gave a good idea of how the Japanese utilize the narrowest strips of land. This little area was a charming sight from the room where we rested. The bushes

[1] As we neared Tokyo we learned that a mutiny had broken out in the Tokyo garrison, hence the suppression of the telegraph.

were gracefully trimmed, the iris dwarfed, curious rocks were piled here and there, little evergreens and Japanese maple gave color, and the whole effect was pleasing. All the afternoon we traveled, and at seven o'clock we were so tired that it seemed impossible to go farther, yet, after taking a hearty lunch of rice, we started for the next station. It was cool and delightful riding in the evening air and interesting, passing through village after village at night and then into the open country road again. If we could only reach Shirakawa that night we could get to Utsunomiya the next night, and from that place we could get a stage to Tokyo.

As we neared the town at ten o'clock at night we knew some unusual event was taking place, as people were flocking along the road in numbers. As we got into the place we found that the buildings were all illuminated by lanterns and transparencies of various designs. It was half-past ten before we found accommodations for the night, so full were all the inns, and the inn we finally stopped at was crowded and the streets thronged with people, all smiling and happy. At eleven o'clock a big procession came along, all having lanterns of bright colors on the ends of long poles or carrying them in the hands. As the procession was made up of companies, or groups, they probably represented different trades or charitable organizations. One group had red lanterns, another white, and so on. The oddest sight was to see the lanterns carried on long bamboo poles, in some instances thirty feet high, the men seeming to have all they could do to balance them. The men moved along in a sort of half trot, and all shouted, "Yasu! Yasu!"

In the middle of the procession was an elaborate canopy

carried on the shoulders of a dozen or more men, and in carrying it there seemed to be a mock struggle by some of them to hold it back as if it were being borne along reluctantly. It was impossible to sketch this scene, but you may imagine the appearance of a wide street lined with the low, one-storied Japanese houses, with rows of lanterns under their eaves, the tea-houses filled with admiring guests, girls playing on the samisen, or flute, and the street filled with this trotting procession, lanterns bobbing up and down from poles fifteen feet high, and, at intervals, in pairs, big lanterns on poles thirty feet high. I, a solitary foreigner looking on, was greeted by every one that passed with a glance, yet not a disrespectful look or the slightest rudeness was offered by this great crowd.

The next morning we were off by candle-light. At noon we stopped at a place famous for its fried eels and we had a delicious dinner. In the afternoon we crossed the Tonegawa swollen by the rains, and while waiting for the ferry-boat we noticed a crowd of Japanese below the landing on a broad strip of sand that bordered the river. We were told that a few hours before a man had been drowned in attempting to wade the river, and they were just getting ready to remove the body which had been recovered. I went down into the crowd, and there was the customary big wooden tub in which the body had been packed preparatory to cremation, a woman beside it in deepest grief. A few men were burning incense sticks, and the rush of water, the stretch of sterile sand, and the black, scudding clouds above all formed a sombre and striking scene. My sudden appearance among them was like an apparition, and they all looked at me as if I had dropped from the clouds

above. The boat came and I hurried back to the landing. Soon afterward it began to rain and continued to rain the whole day.

About seven o'clock in the evening we reached Utsunomiya, sixty-seven miles from Tokyo. It seemed like getting home again, for it was the first familiar place I had seen since I left Tokyo in July. We spent the night here on our way to Nikko last year; we now stopped at the same house and I had the same room. I could hardly realize that in the short time that had elapsed since my first visit I had been to America and returned, to Yezo and back overland, had got so accustomed to Japanese food that I could not only eat with a relish, but could ask in Japanese for anything I wished, and had become so used to the Japanese objects, ways, etc., that everything seemed perfectly natural.

The stage left at six the next morning. Our passengers were all Japanese, and among them were two rather elderly ladies who had been to Nikko and were returning to their home in Tokyo. They were all very pleasant and courteous and offered to one another candies and cakes, and, in turn, dropped a few cents into the tray that was often brought to us with cups of tea from some wayside booth. At noon we had dinner together, and I amused the ladies a good deal by insisting upon pouring the tea for them. I also entertained them with a number of hand tricks and we had a most enjoyable time. At the inn I got a sketch (fig. 459) of one of the ladies as she was taking an afternoon smoke, at most three or four gentle whiffs. It shows the position of the right foot when sitting on the floor; the left foot is just inside. The upper, outer side

of the feet rest on the mats while one sits on the inner side of the feet and the lower part of the leg.

Fig. 459

Figure 460 is an *ishidoro*, or stone lantern, in a garden back of the inn at Utsunomiya. The upper piece is wrought out of a single block of stone and the pedestal represents an old stump of a tree worked out of another block of stone. It was old, judging from the lichen that grew upon it. What amazes one in Japan is the fine stonework, cabinet-work, and other kinds of artisans' work found in nearly every town and village. It shows the widespread distribution of men in various occupations who are skilled in the work they do, all having served their apprenticeship faithfully.

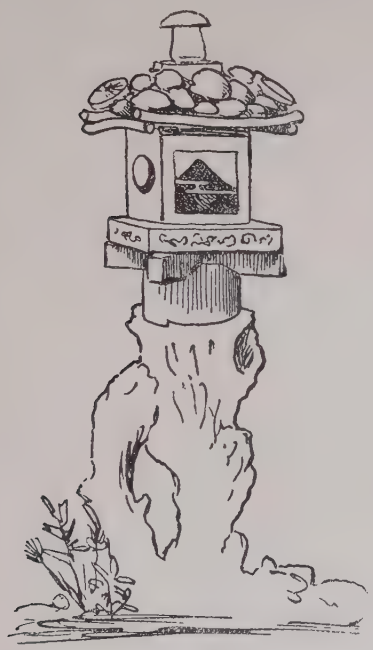


Fig. 460

At noon we came again to the Tonegawa and crossed it in a large, flat-bottomed scow, and then went on again, changing horses every few miles. As we approached Tokyo, particularly in the outskirts of the city, I began to notice how much prettier the children were than

in the country. I noticed this feature in approaching Sendai. I explained this marked contrast in the appearance of the children by the fact that in all the inns and tea-houses girls are employed as servants, and the keepers of these places evidently scour the country for good-looking girls. These come to the city, ultimately marry, and transmit their good looks to their children. This, at least, seems a rational explanation.

CHAPTER XV

A JAPANESE WINTER

We got back to Tokyo about seven in the evening and I started for the yashiki with a fresh jinrikisha. It seemed odd to be riding through crowded streets again. It made me quite nervous for fear of a collision, and it was several days before I became accustomed to it. I had been traveling for eleven days on long country roads a distance as far as from New York to Columbus, Ohio, and more than half this distance with a single Japanese companion, yet, with the exception of a scowl from an old Japanese woman in a village far to the north, and an experience with two men who endeavored to make me move off a narrow road, I had met no unfriendly demonstrations during my entire journey. The road experience was a perfectly natural one, and might happen a thousand times in our country when two gentlemen walking along a country road would not permit themselves to be crowded into the gutter by a Chinese laundryman. I was half a mile ahead of my companions, and was standing in the middle of a narrow road sketching the outline of mountains. The two men regarded me as an outside barbarian, and to avoid the risk of a fight I should have regarded myself as such and stepped to one side. But their evident intent to run me down made me stand my ground, and just as they were ready to push into me they parted and did not even brush me, though I felt a little apprehension as they passed.

In inquiring about the names of fingers and toes I found the Japanese have no name for toes except "foot fingers." The thumb is called "great finger," or "parent finger"; the fore-finger is named "man-pointing finger"; the mid-finger is known as "high, high finger"; the ring finger is designated as "medicine finger" or "no-name finger"; and the little finger bears the same name as with us, "little finger." In Spanish the third or ring finger is also known as "medicine finger," as when we apply ointment to the eyes, or when we rub them, we nearly always use the third finger, this finger being softer. In a few Indian vocabularies to which I have referred the toes are called "foot fingers." The teeth also have their names; the incisors, or front teeth, are called "thread-cutting teeth," showing that the Japanese ladies have the same bad habit that ours have. The Japanese word for "tusk" is the name for canine teeth; the molars are called "back teeth"; while the wisdom teeth are known as "no parent teeth," as they usually appear after one's parents are dead. The eye-brow is called "hair over the eye"; eyelashes are called "pine hairs." The neck is called " root of the head." There is no distinct name for the ankle and wrist, it is leg and hand *kubi;* the prominences on the ankle are called "black prominences," as in their barefoot habits these parts show the dirt first. The shin is called *mukozune*, and the Japanese say when this part is struck even Benkei would cry. Benkei was a very strong man and marvelous stories are told in regard to his strength.

A Japanese professor and his wife called at our house the other day and I induced the latter to permit me to make a sketch of her. The face does no justice to her beauty

(fig. 461); I also had an opportunity to sketch a Japanese baby sound asleep.

One may visit the market many times and meet with something never noticed before. One is at once impressed with the artistic way in which everything is displayed and the immaculate cleanliness of everything; the turnips and white radishes are literally white, not a particle of dirt showing upon them, and everything is tied or done up in graceful ways. String beans are bound with straw in packages as shown in figure 462.

Fig. 461

The mechanical toys are always interesting. With the simplest of construction, and frail as many of them appear, their durability is remarkable. The mouse that eats out of a dish and drops his tail at the same time is shown in figure 463. The bamboo spring on the side keeps the mouse in an attitude of head and tail up, by strings that run up from the stand below. The moment you press the spring the string is loosened, the head and tail drop, the head going into a little ring of bamboo which represents a dish. The

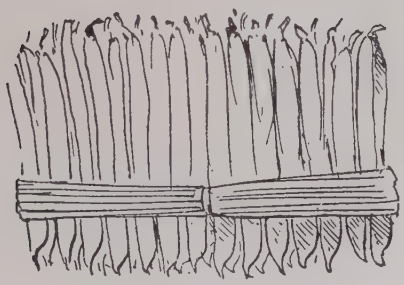


Fig. 462

mouse is not painted, but charred, making a brown surface. The Japanese have a great many ingenious devices for toys of this description, many of them on sticks to be moved by strings, or they may move like our jumping-jacks.

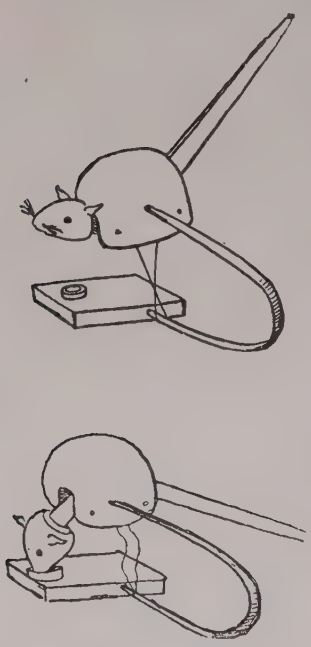


Fig. 463

Many toys and games are similar to ours, though in many instances they are more elaborate; thus, in cat's-cradle the forms go beyond ours. The Japanese make a great variety of paper objects, and many of them are very ingenious. Those commonly made represent a kimono, a flying heron, a boat, lantern, flower, stand, box, the box quite different from the fly-box of our boyhood.

As another illustration of the tameness of birds, especially crows, my jinrikisha man had left his lantern hanging on behind the jinrikisha, and while I was putting on my overcoat, within three feet of the jinrikisha, a crow came down, alighted on the wheel, smashed a hole through the paper lantern, and devoured the vegetable wax candle within. I allowed him to do it and would have paid for a hundred lanterns and candles rather than have missed the experience. The crows are literally the scavengers of the streets, and are often seen disputing with a dog the possession of a bone or stealing crumbs from the children.

Japanese artists have depicted a crow stealing a fish from a basket carried on the head of a street peddler. The crows are very tame because they are never treated unkindly; indeed, all wild animals are tame and the domestic animals are much tamer than with us.

At this time of the year (November) the children are flying kites, playing ball, or spinning tops. They fight their peg tops as our boys do. The tops, however, are differently shaped from ours, as shown in figure 464; and instead of endeavoring to split the other top they push them together until one or the other stops. The ball-playing consists in patting the ball to the ground, then catching it on the back of the hand and bouncing it again; the one who can do this the greatest number of times wins.

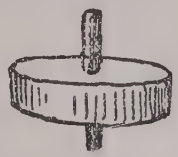


Fig. 464

The boys are as fond of walking on stilts as are our boys. The stilts are called *chikuba;* literally, "bamboo horse." One speaks of a boyhood friend as a *chikuba no tomodachi*, or "stilt friend." Figure 465 represents two types of stilts, one made of two pieces of wood bound to bamboo by cord. The rest for the foot, instead of being transverse to the foot, is lengthwise, so that the whole sole of the foot is supported. The other is a rarer form made entirely of wood. The stilts may be four or five feet in height, and the boys often hop on one stilt and with the other endeavor to dislodge, or pull down an antagonist, and in this way get up lively contests.

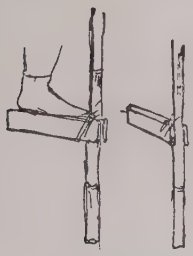


Fig. 465

November 22. We visited the Omori shell mound again to make a collection of the different species of shells composing it, and then went to the beach to collect the living examples washed up along the shore in order to compare the two. I had begun to notice the difference in the shells sometime ago, not only the variance in size, but a difference in proportion. Three species of a bivalve shell (*Arca granosa*, *lamarckiana*, and *ponderosa*), having radiating ribs like a scallop, have increased the number of ribs since the shells were deposited; one species of whelk (*Eburna*) has a more acute spire to-day; another species (*Lunatia*) has a less acute spire.[1]

While walking along the railroad track we observed that the Japanese workman in grading would sing with every stroke of the shovel or bar. The Japanese apparently sing at all their work.

We went to a famous tea-house for lunch. A stone monument in the beautiful garden had an inscription which puzzled my Japanese friends to translate. Professor Yatabe said the meaning of it might be conveyed by the following: "The fragrance of plum blossoms causes the flowing of ink in the writing room." The idea to be conveyed is that the fragrance of flowers prompts the poet to write verses. Many of these inscriptions, often from their own or from Chinese classics, are found on tablets hanging up in the houses or on stone slabs in the gardens. When translated they sound rather feeble to us, but the Japanese insist that the characters in

[1] These and other differences were published in my memoir of the Omori shell mounds. That portion referring to the changes observed in the shells was sent to Darwin, and in reply he said, "What a constant state of fluctuation the whole organic world seems to be in!" (*More Letters of Charles Darwin*, vol. I, p. 383.)

which they are written mean much more to them and that the spirit is impossible to translate. The students with me endeavored to render the inscription into English, but found it

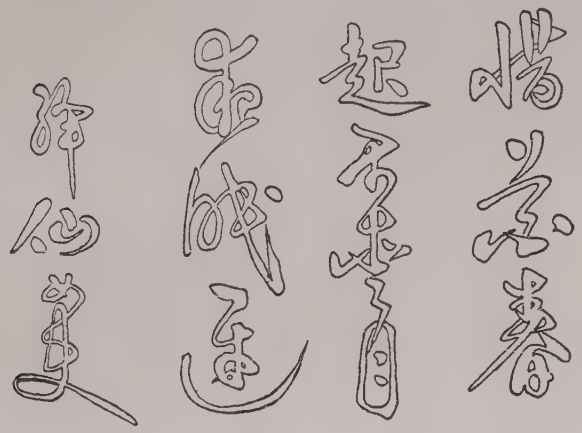


Fig. 466

very difficult. One of them accomplished the following: "The odor of plums is like the flowing of ink in a room where they keep white paper." Mrs. Yatabe wrote in my album a sentiment from the Chinese classics which is said to be beautifully done. A tracing of these characters is given in figure 466: "Loving flowers we rise early in the spring, admiring the moon we retire late at night."

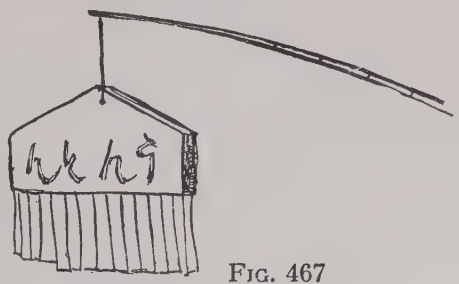


Fig. 467

The sign for macaroni (fig. 467) consists of a block of wood with strips of paper hanging like a fringe below. The macaroni is made from buckwheat and is very

good in soup. The sign for paste is a round disk with a character for paste written upon it (fig. 468). Paste is an article of merchandise as with us, the Japanese, however, finding many more uses for it.

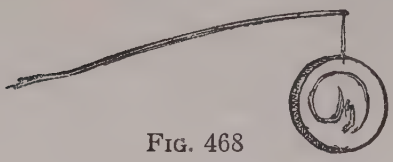


Fig. 468

This season (the last of November) seems to be the time for moving trees, and one meets the tree-movers very often in the streets. I have seen a tree so large that thirty men were required to handle it. The trees seem to bear repeated transplantings, for they are sold and resold again and again, and are carried miles in the way shown in figure 469.

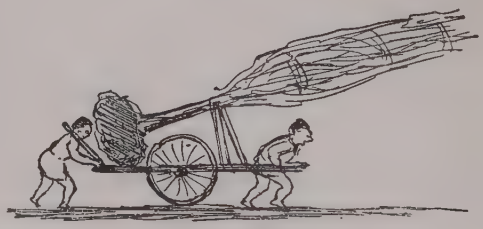


Fig. 469

As the cold weather approaches the people appear in thicker overgarments, though the lower classes are all barelegged and barefooted, and so far as one can see the houses are as open as ever. With a heavy frost on the ground and the ditches along the streets frozen over, the little shops are still wide open, the only source of heat being the little fire box, or hibachi, around which they seem to cuddle a little closer to warm their hands over the few coals burning in the ashes. It is an odd sight to see jinrikisha men, after a run of miles and reeking with perspiration, throw a light blanket loosely over the back and sit in the cold wind while waiting for another fare. Everybody goes bareheaded, and so unaccustomed are they

to wearing a hat that oftentimes when students wear a hat in calling on you, they will go off without it and perhaps come a week after to reclaim it, the delay showing how little they miss it. In cold weather men wear a cloth bag arrangement, heavily quilted, with a long cape behind. It appears to be a bag with a hole in it for the face (fig. 470). We have the same device made of worsted for boys at home. The children, when bundled up in their warm clothing, are funny-looking things. The outer garment is heavily wadded, and the sleeves are so long that the hands are entirely hidden; it resembles a Chinese garment. The ladies wear a very becoming hood made out of a piece of cloth, a yard and a quarter long, folded as in figure 471 and sewed at A, but open behind; inside, at B, are long loops which go over the ears pulling it down in front, the face coming out at D; the two flaps, E E, are wound around behind the neck and folded in front. It is very easily adjusted and is a device that would be appreciated in our country. It is generally made of purple crape, and even a plain woman looks pretty when wearing it. Figure 472 represents a lady wearing the hood.

Fig. 470

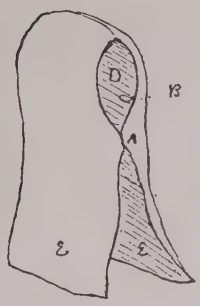


Fig. 471

The oranges now displayed in the markets are all of the variety known with us as tangerines; they have a very thin, easily removed skin, and the segments almost drop apart. In some you can look through the centre, as the segments do not meet. They vary from the size of an English walnut

to some as large as our ordinary orange. The smaller varieties are seedless; the very large ones are not good to eat, but are used as ornaments. When oranges are to be given as presents they are packed in a very attractive manner in open wicker-work baskets of bamboo. These baskets are supported on three bamboo legs, the strips of bamboo being prolonged two feet above the oranges and held together by two bamboo rings (fig. 473). The shops are very pretty with these graceful orange-holders in rows, arranged artistically with a little sprig of evergreen on top and with the rich color of the oranges showing through the delicate slats of green bamboo. An interesting and puzzling way of cutting an orange is shown in figure 474; figure 475 shows one half from the end, the dotted lines showing the manner of cutting. The soft and easily separated peel renders it rather easy to do, yet at home a friend of mine did it with one of our hard-skinned oranges.

Fig. 472

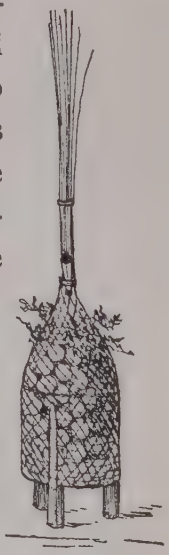


Fig. 473

The games are as seasonable as with us. Kite-flying, top-spinning, and battledore and shuttlecock are dominant at present. In walking or riding you are often struck by the shuttlecock, always followed with smiles and apologies. The implements are different from ours. The battledore is made of board, on one side of which is an elaborate picture in crape of bright colors in relief, the subject being some celebrated hero or actor. Some of the battledores are very elaborate in their decoration (fig. 476). The shuttlecock is made out of the soapberry seed (*mukuroji*), five feathers forming a plume at one end. These are sold in sets of five and are held in a slip of bamboo (fig. 477). In the shops where they are sold they have a most brilliant display of them, and generally a huge shuttlecock hangs outside as a sign. Figure 478 represents Daikoku, god of fortune. It is made up of pieces of bright-colored brocade with gilt threads interwoven, and is coarsely made, as the toy is very cheap. Figure 479 shows the attitude of a girl in playing battledore. Instead of the *thum, thum, thum.* sound of our battledore, the sound of the Japanese game is *click, click, click,* as the hard seed is struck by the wooden battledore.

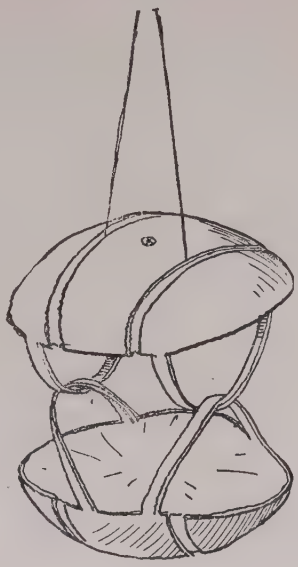


Fig. 474

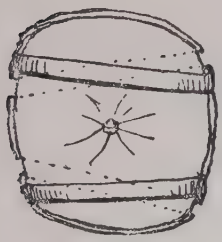


Fig. 475

Fig. 476

Fig. 477

Fig. 478

Fig. 479

During this month (December) there are a number of fairs held in the vicinity of the temples, the articles sold consisting of household decorations of straw for the New Year, shrines for the house, and children's toys. The larger fairs having been held, the smaller ones spring up in various parts of the city. It is astonishing what crowds of people throng these outdoor bazaars. We attended one held near a temple not far from the yashiki. The streets on both sides were crowded with booths, and the people were packed in a dense mass, many going to the temple to get their purchases blessed by the priests, holding them high above their heads to avoid their being crushed by the crowd. It was interesting to observe that at all these festivals the objects offered for sale were children's toys, religious or semi-religious decorations, and objects connected with their household shrines. When I read in the papers from home letters by missionaries saying that the temples are being deserted and the faith dying out, and then see the actual facts of temples crowded every day, temples being retiled and repaired, with every evidence of prosperity, I wonder at such false reports.

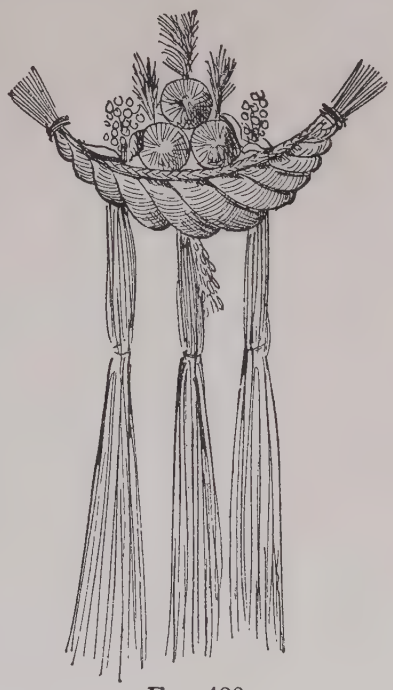


Fig. 480

The objects for New Year's decorations are made of rice straw, twisted and braided in various ways. It is customary to hang them over the entrance of the house and also over the household shrine. Many of the designs are pretty, and some of them indicate considerable skill in their construction. One of the prettiest designs and one of the most common is shown in figure 480. This one was over two feet long and the pendants below were three feet in length. The roll may represent a boat; if so its cargo consists of three balls made of rice straw with sprigs of pine and some bright red berries. Below a few bunches of rice are hanging; a little gilt leaf is stuck on the poles of the balls and the whole affair is bright and attractive. Another one (fig. 481) is a wreath of straw with bunches of rice and straw hanging down; figure 482 shows a form which is hung over a door and consists of a twisted strand of straw running down to a point. Some of them are six feet long, and one often sees this form in Shinto temples. Figure 483 is a fringe to hang over the door, and figure 484 is a rope of straw woven, with strands hanging to it at a distance of five inches apart. This is wound up like a huge tassel, and when unwound is hung around the sides of the room, white paper

Fig. 481

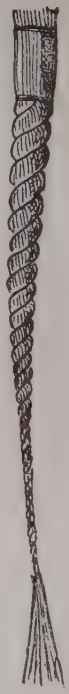


Fig. 482

cut in symbolic form being tied to the rope between the pendent strings. In some cases the decoration is very elaborate. In figure 485 is represented a complicated structure over a gateway. In the centre is a lobster with dried seaweed hanging below, dried persimmons on each side, fronds of ferns pendent, paper cut after Shinto style, and the whole structure supported by pine trees. Without color it is difficult to represent its attractive appearance. Figure 486 shows a decoration in front of a gate; the cut bamboo, deep green in color, was twelve feet high and looked like huge organ pipes. These rose from a cluster of pine twigs, the base firmly tied up with straw rope and the earth neatly piled up below with a straw ring to hold the earth.

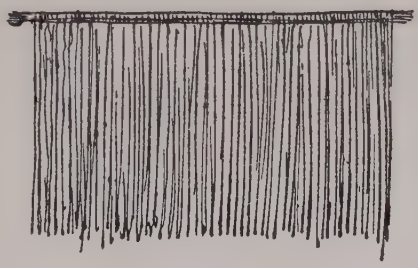


Fig. 483

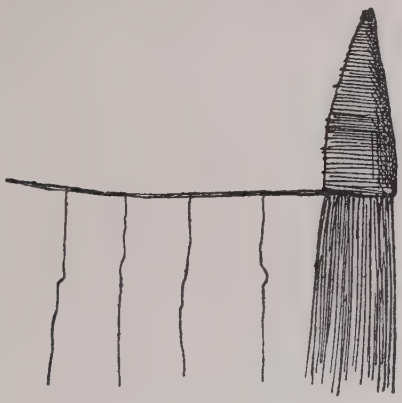


Fig. 484

At New Year's time it is a constant source of pleasure to roam through the streets and study the great variety of decorations. The taste displayed, the sentiments conveyed by the use of symbolic material, such as pine, bamboo, etc., make an interesting study. On New Year's in my round of calls I noticed that many of the shops were closed. The streets presented a

lively sight of action and color — the older people, finely dressed, making their New Year's calls, the younger ones brilliantly dressed, playing battledore and shuttlecock, the boys flying highly colored kites of all sizes and at all heights. In gardens of the higher classes the girls were gayly dressed, and such flashes of color as their long sleeves streamed in the air in striking the shuttlecock!

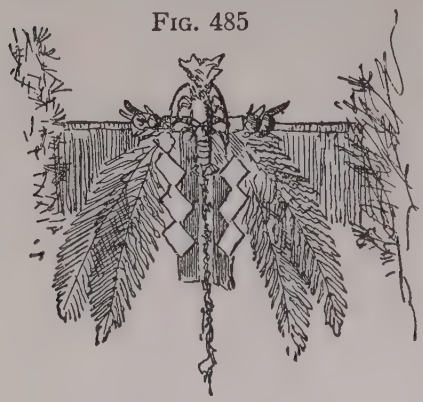


Fig. 485

A great many officers and soldiers were on the streets, flags were flying everywhere, and nearly every house was decorated with the quaint straw devices. It was an inspiring sight to see the streets thronging with children, to hear the sound of musical instruments, and here and there to catch a glimpse of convivial parties sitting around their food and wine. At every place where I called food and saké were offered me as one of the customs of the New Year, for even the food con-

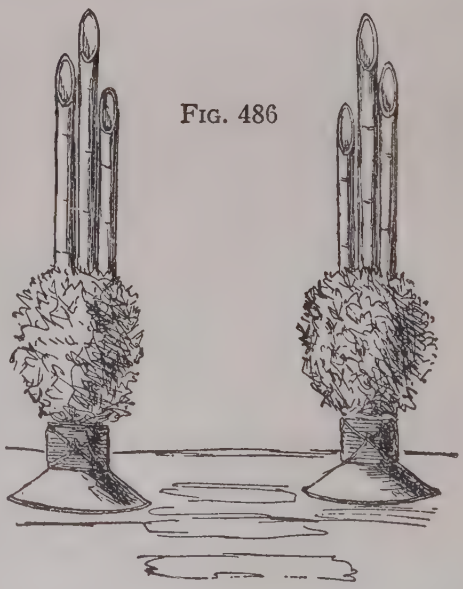


Fig. 486

veys some sentiment as well as satisfaction. A sweet saké is always served at New Year's, and this is offered in a special vessel with a spout like a teapot, and the bail, or handle of porcelain, or pottery, is in one piece with the body. One often sees these objects mixed with a collection of teapots.

As the service is essentially the same as to dishes and food a sketch of one will answer for all. Figure 487 represents a

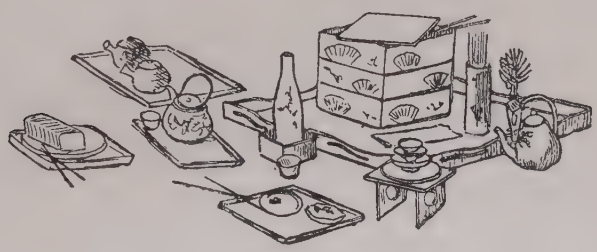


Fig. 487

typical service of wine, cake, etc., at the house of one of the Japanese professors where I felt well enough acquainted to pull out my sketch book. The drawings show the objects just as they were upon the mats. The pot of sweet saké is seen to the right with a sprig of pine and the *noshi* which always accompanies a present secured to the handle; the ordinary saké is served in a bottle which rests in a low square box. The three square lacquer boxes one above another contain the food, which consisted of the following articles: fish eggs in masses, just as they are taken from the fish; a bean pickle in sugar syrup and Japanese sauce; a little dried fish as hard as a stick; lotus root, cut in oblique slices and very palatable; a water chestnut, cut in sharp scallops; a fish tied up in a

bundle with green seaweed; cold omelette, cut in slices; cake, tea, and saké (fig. 488).

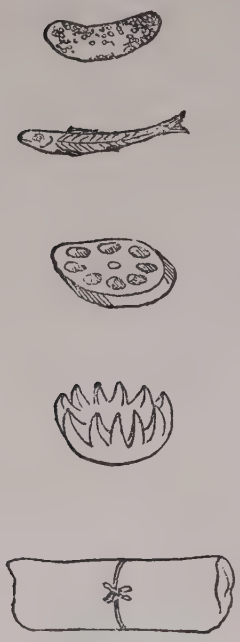


Fig. 488

The Japanese are very formal in their observances of New Year's calls. The gentlemen call and leave their cards in boxes or baskets at the door, or walk in and drink a little tea or saké. After a few days the ladies call. On New Year's day the Japanese officials call on the heads of departments, and one sees many officers on their way to the palace, and a funny sight it is to see those who affected foreign costumes. The New Year's celebrations continue for a week, and during this time it is impossible to get any work done. How staid and sober our New England method of celebration of New Year's appears in contrast to all this gayety — a few wreaths hung up in the window, but nothing more. In New York City the savagery of horn-blowing finds its parallel only in the racket made by the Chinese.

A present came to our house of two large, fat teal (fig. 489). These were in a square, shallow basket standing on four short bamboo legs. The teal rested on vegetables, greens and three round lemons.

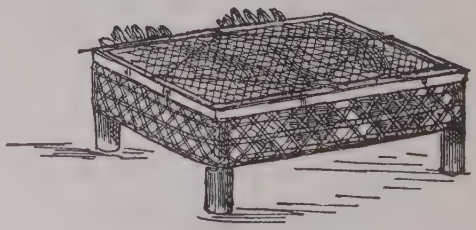


Fig. 489

The birds are made into soup and the lemons are squeezed upon it, but notice the neatness of the whole device and the complete way a present is given in Japan. A present means a great deal here, and no matter how humble, the noshi is always affixed to it.

Mochi is a favorite article of food at New Year's time, and just as the New Englander makes up a lot of mince and pumpkin pies for Thanksgiving and Christmas so the Japanese prepare mochi. It is made of a glutinous kind of rice, which after proper boiling is placed in a huge wooden mortar and stirred vigorously with long sticks. It is a common sight at this season to see the preparations going on in the street. Figure 490 shows men stirring the dough. After this it is dusted with rice flour and pounded with a large wooden mallet. It is very sticky and the mallet often gets stuck in the mixture. Hokusai has made a comical drawing of a man who is endeavoring to draw his mallet out of the adhering mass. After it is properly kneaded in this way, it is made up into flattened round loaves, some of them two feet in diameter and resembling huge puddings; it is also rolled into thick sheets (fig. 491). It is sold in many shops and is much liked by the Japanese. It is very sticky to eat, and reminds one of heavy bread, but it is nice when toasted in thin sheets with burned or browned meal and a little sugar sprinkled on it,

Fig. 490

Fig. 491

a common way of eating it. Figure 492 shows one form of offering. This is a little bamboo table, or stand with two big loaves of mochi on the lower shelf; wreaths of rice straw, evergreen leaves, white paper cut into strips, and a few fern leaves surround them

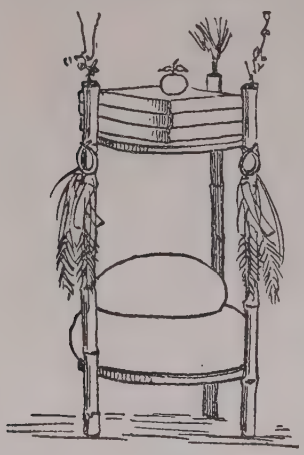


Fig. 492

At this time of the year (January) every boy in the city has a kite, and the wind being favorable the air is literally full of kites of all sizes, shapes, and colors. Some of them are of so large a size that a small rope is necessary to fly them with. Some have large dragons painted on them in bright colors. These may be eight feet square, with eyes made like tambourines hung in circular frames, so that as the wind revolves them, the eye being painted black on one side and covered with silver leaf on the other, the monster appears to be winking at you. I saw a most frantic scattering of a flock of hens as a kite of hideous aspect darted down among them. Some of the kites are in the shape of a boy with long sleeves fluttering in the wind; others like birds with outstretched wings; some in the form of centipedes, fans, and other quaint designs. The kite, though frail-looking, darts with great force to the ground, and is dragged over it without injury. The frame of the kite is made of light strips of bamboo bent slightly backward by strings running across from the ends of the transverse pieces of the framework; the paper, of that tough kind peculiar to

Japan, is thus stretched like a drum-head and is convex in front. The kites have all manners of flying. Some without the long tail, or bob, are as steady in the air as are others with two exceedingly long tails hung from the lower corners of the kite. It is a pretty sight to see these two long bobs hanging parallel, and as the kite sways back and forth the graceful curves of the bobs run along in perfect unison. Some kites dart back and forth in vigorous fashion; others are made to fly directly overhead in strong winds, and the string is almost vertical. The boys not only enjoy the mere flight of the kite, but often fight them; and, I may add, it is the only way I ever saw boys fight among themselves. At the kite shop can be bought a simple device of wood which is strung upon the kite string; in a deep notch of this device is a sharp blade as shown in figure 493. By manœuvring the kite the string can be brought over the string of an opponent, and by dragging it along, the string slides into the notch and is cut. Boys in different blocks and out of sight of one another may engage in these contests. It was a new thing to me to see the adroit way in which a boy would make his kite go sideways almost at right angles to another kite flying by its side. The kites often have attached to them a "singer" consisting of a thin ribbon of whalebone kept taut by a bamboo bow. This is secured to the top of the kite and the wind vibrates

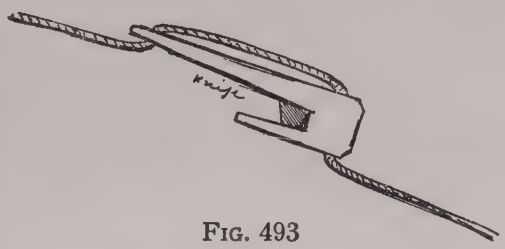


FIG. 493

the whalebone ribbon, producing a loud, humming sound which reminds one of a planing machine or a sawmill. It is a great annoyance at times when writing to have this incessant hum directly over your house with the boy flying the kite a thousand feet away. Besides this æolian-harp-like device I have seen a cord simply stretched across the bow-like piece, to which was attached short flaps of paper, and these would flutter so rapidly in the wind as to make a peculiar humming sound different from the whalebone, or sometimes bamboo, ribbon. Figure 494 is a sketch of the musical contrivance attached to the top of the kite.

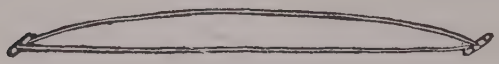


Fig. 494

A curious device to indicate the months which have thirty-one days and those which have thirty or a less number of days is shown in figure 495. The object consisted of an irregular piece of wood charred brown, the characters painted in white. The first column is headed with the character for "small," or "little," and then follow the numbers, 2, 4, 6, 9, and 11, these months having thirty days or less; the second column with the months containing thirty-one days is headed by the character for "great." The mushrooms at the bottom were made out of paper slightly browned by heat, looking precisely like the real objects, and held in a little straw device as they are seen in the markets. My daughter paid one and one half cents for it.

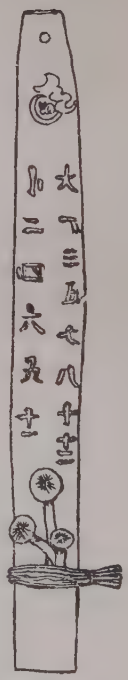


Fig. 495

We went to the theatre the other day at twelve o'clock noon, carrying our lunch with us, and never left the place till half-past eleven at night. The actors, the scenery, the music, and the audience held the attention at every moment, and intermissions of ten or fifteen minutes left one time to enjoy the family gatherings in their two-mat bins, servants from outside tea-houses bringing in attractive-looking lunches. The concealed orchestra had two drums of widely different pitch, one not unlike an ordinary drum, the other sounding like a person suddenly choking. The illusion of distance on the stage was ingeniously accomplished by making the buildings and sides of the stage taper to the rear as in exaggerated perspective; the stage was not over fifty feet in depth, but by this method it looked ten times as deep. In one scene a *ronin* is leaving the gate of his yashiki uttering sad words of regret and waving his hand. Suddenly the gate appears more distant, and again it apparently recedes. The illusion is conveyed that the man is fast leaving it. The effect is produced by a big gate painted on thin board which drops forward disclosing a smaller gate painted precisely like the first and this in turn drops, disclosing another gate still smaller. The classical plays of the Japanese enable one to get an idea of court dress and, in a slight way, perhaps, of court etiquette and ceremony. Figure 496 shows hasty sketches of an actor in various attitudes, and is interesting as illustrating the old costumes. To see a two-sworded dignitary walking across the stage in nether garments four feet too long, trailing back under his feet as he walked, was very odd.

An interesting sight it was to see throngs of beautifully

dressed children leave the audience and rush to the stage as the curtain came down and find their way behind the curtain on each side to watch the stage carpenter at work erecting new scenery. When the wooden blocks clacked together as a signal for the curtain to be raised, the children swarmed out again and hurried to their respective bins in the audience. What greater evidence could be offered to illustrate the universal good behavior of the Japanese boy and girl! Of course such an invasion of children on our stage would not be permitted for a moment; but think of the tacks spilled, paint upset, and other deviltries which would instantly develop if our sweet children were allowed behind the curtain! In Japan, however, the children are allowed to go everywhere and see everything because they never seem to abuse the privilege.[1]

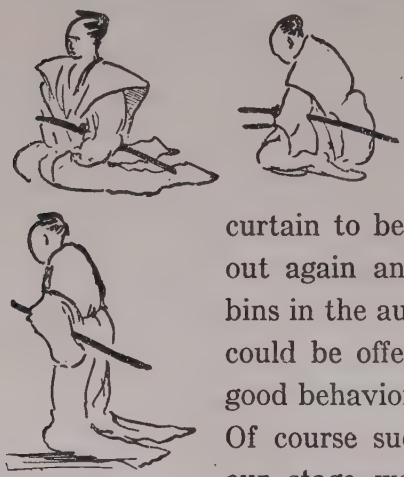


Fig. 496

Early in December the fire companies of the city come together for a review. The fire bells ring and the companies gather on a large square where all kinds of acrobatic feats take place. They climb ladders, have races, and perform a number of feats, and appear very skillful, but in actual service, while showing the greatest bravery, they do not impress the for-

[1] And the way these same children become brave fighting soldiers as shown in the Formosan, Chinese, and Russian wars, proves that courtesy, gentle ways, and good manners are not disassociated with consummate bravery and endurance on the battle-field.

eigner as very efficient. Their problems, however, are so different from those of our firemen that it may be hardly fair to pass judgment. The Japanese firemen are called upon to destroy buildings in the path of a conflagration and to wet down the men who are thus engaged, and to do all this work with the greatest possible dispatch.

Occasional snowstorms have occurred this winter, but the jinrikisha men do not seem to mind the snow and run in it barefooted, and when standing the steam is seen rising from their bare feet. Curiously enough, the houses appear as open as in the summer. The children are barelegged just as in the summer, and play in the snow without minding the cold. After a snowstorm the people turn out with scoops, boards, and a peculiar kind of wooden shovel and clear the entire street in front of their respective shops and houses, the snow being put into the gutter which runs along the side of the street and which is usually covered with boards. Figure 497 is an extemporized snow shovel made out of a board with a loop of rope near the end for a handle. The snow being moist, the children roll big balls of it as do our children at home, and have contests as to which one will make the biggest ball, in the following manner: a small stick is tied crossways to the end of a string, and this is swung back and forth in the damp snow to see how big an accumulation can be made before the snow drops off of its own weight.

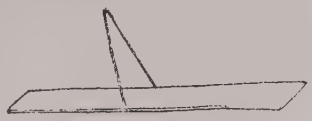


Fig. 497

The construction of ladders is interesting. The sides are made of stout bamboo, and from the centre to the ends the

bamboo is bent outward, thus giving a wider base upon which it rests and a flare at the top (fig. 498). By this method the ladder is greatly strengthened. The slats are firmly tied to the supports, while with us holes are bored in the sides of the ladder which naturally weakens it.

Fig. 498

In a recent visit to the Omori shell mounds I discovered a large fragment of a human tibia laterally flattened with an index of 60, as indicated in Broca's platycnemic tibia; the index of the tibia of a modern Japanese is 76, as is ours. This suggests a considerable antiquity to the deposit.

I was told by one of my students that in former times, if any person fell into the castle moat and was drowned, it was not allowable for any one to recover the body, as the depth of the water might be discovered, and this was kept a secret. This statement has not been verified, but may be true, though I doubt it.

For several weeks I have taken my lunch at the laboratory *à la japonaise.* Trying it once I found that the lunch was

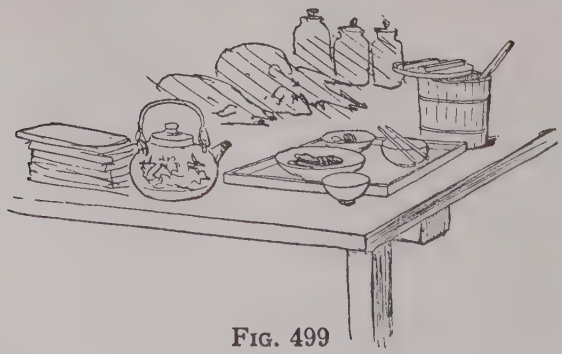


Fig. 499

good, and though I have to eat it on the corner of a big table laden with snakes, worms, and skulls, I find my appetite is not affected by the surroundings. The wooden bucket contains boiled rice (fig. 499) and the wooden shovel is to scoop it out with. There is also a large piece of broiled fish, — horse mackerel, — tender and delicious; another dish contains a slice of salted ginger, radish, and a bunch of green leaves of something. Having acquired the use of the chopsticks, I shall recommend them to the world as the most simple and economical device ever invented by man.

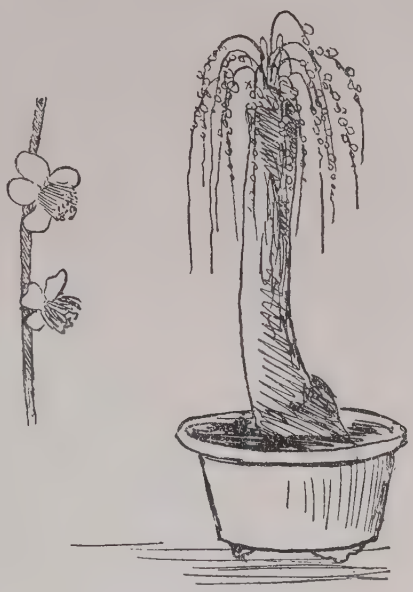


Fig. 500

One marvels at the dwarf plum trees that one sees at this season (January). You are invited to a garden to see in various sizes of flower pots what appear to be dead stumps, literally black chunks of wood without the sign of a bud or sprout; then weeks after you again visit the garden and find that these same black stumps have produced long, delicate twigs bearing the most beautiful blossoms without the sign of a green leaf. The contrast between these exquisitely tinted blossoms, and the black and apparently dead stumps from which they spring, leaves you amazed at the skill of the gardener who can produce such anomalies. The

one shown in figure 500 was forty years old. It is trained to grow in this way. It is kept under cover where it is warm and the blossoms appear much earlier than on the out-of-door trees. Pine trees are also trained to leaf out from thick logs of pine, as shown in figure 501, though the usual form of dwarf pine is a veritable tree, branches and all, three feet high and a hundred years old.

Fig. 501

February 28, the plum trees are in full blossom. The flowers are usually of a deep pink or rose color and emit a delicious fragrance. Peddlers wander from house to house carrying twigs and branches of plum blossoms for sale.

It is curious how slowly and unconsciously one grows to the appreciation of the quaint and odd in Japanese art hand-work. Of course the artist instantly sees the beauty of it, and no one could fail to admire the beautiful work of the sword-guards and other objects. But when one sees their pottery, for example, irregular in shape, purposely dented in, with sketchy designs, so unlike any pottery an Occidental is accustomed to, he wonders what there is to admire about the work. Let him begin to collect, however, and if he is a natural-born collector he will become wild over the tea-jars and other forms of pottery. I have started a little collection and have lately added two

Fig. 502

pieces (figs. 502 and 503). One is a vessel for sauce. The pottery is Akatsu, Oribe; the other a Satsuma teapot. They are at least one hundred and fifty years old, perhaps older. They are really fascinating to handle, and the fun of finding such nuggets in the simplest little bric-à-brac shops is only appreciated by those imbued with the collectors' spirit. The collector of bric-à-brac finds Japan a veritable paradise, for wherever he goes he finds second-hand shops, known as *furui doguya*, displaying old objects of every description: pottery, metal and lacquer work, basketry, swords and sword furniture, pictures, etc. In the smallest villages through which one rides one finds some shop of this description with a modest assortment of old things. One cannot help recalling the fact that in our country the second-hand shops in our towns are limited to the sale of second-hand furniture, second-hand books, and second-hand clothing, and only a few of the larger cities will have shops containing bric-à-brac, etc. Furthermore, it may be observed that in the Japanese shop the objects with few exceptions are native products, the exceptions being from China and Korea, while in our country the objects are invariably from Europe or Asia, Dutch delft, Italian majolica, German ironwork, etc. It is a significant fact that one looks in vain for any art object worth preserving from our own country.[1]

Fig. 503

[1] This will not always be so, for within thirty years the arts and crafts movement and the numerous kilns throughout the country have been producing artistic pottery, and the future bric-à-brac shops will have artistic objects "made in America."

I have lately become acquainted with a celebrated antiquarian, Ninagawa Noritani, and have visited him at his house. He is the author of a book on the various kinds of pottery in Japan, illustrated by lithographic plates. These plates, though rather roughly done and colored by hand, are far more characteristic of the pottery than the most perfect chromolithographs one sees in French and English publications on similar subjects. The objects figured in the first five parts were sold to some European before I came to Japan, but I am trying to get representative pieces similar to those already figured, and Ninagawa will identify them for me. If I can only get the same kind of pottery he describes and figures, it will be nearly as good as the original collection from which the figures were made.

Fig. 504

Through Ninagawa, I have learned many interesting things about collectors and collections. It was interesting to find that for hundreds of years these people have had their collections and crazes for collecting. He said that the Japanese have never specialized so much in their collecting as foreigners, and, I judge from what I have learned, were never so systematic or scientific and generally not so curious nor so exact as to the age and

locality of the objects. Among Ninagawa's friends he specified the following as the kinds of objects they collected: pottery, porcelain, coins, swords, kakemono (pictures), pieces of brocade, stone implements, and roofing tiles. The collections of brocade are mounted in books like postage stamps, the pieces three or four inches square; he had seen specimens four or five hundred years old. Bits from the robes of famous men were highly esteemed. The tiles

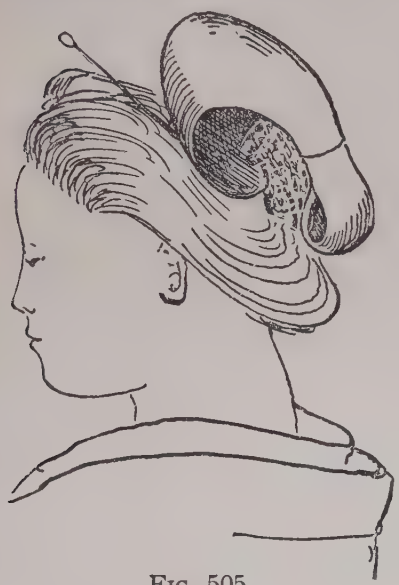


Fig. 505

Fig. 506

are considered very interesting objects; he had seen roofing tiles a thousand years old. He did not know of any one collecting armor. A few collect shells, corals, and the like. There are many books treating of all the kinds of objects above mentioned. Dr. Ito, the famous botanist, whom I have already mentioned in the early pages of the journal, has a large collection of plants.

Figure 504 shows a little girl of the higher class in warm

winter garments. The method of dressing the hair from infancy to old age is a source of interest and wonderment to a foreigner. How a child can manage to preserve her elaborate coiffure for an hour, not to say three days, is past comprehension. An opportunity occurred to sketch various types of hair-dressing. Mrs. T. and her daughter, and little Miss I. made a call on the family, and they amiably submitted to my making a sketch of their coiffure which had been

Fig. 507

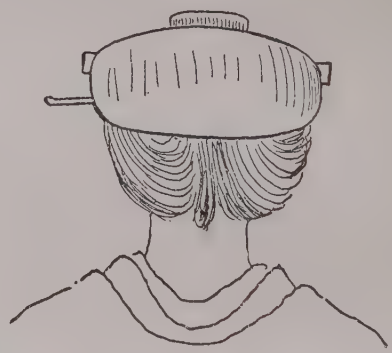


Fig. 508

made expressly for the visit and was consequently in the most perfect state. There are twenty to thirty ways of doing up each one of these types, and though very likely we should observe no difference the Japanese detect it at once. It is said that the first thing young ladies do when they meet is to discuss these various styles. The very method of making these graceful bows and knots necessitates the employment of a hair-dresser, and women barbers go from house to house to perform this service, which is inexpensive. The

country people do their own hair or perform reciprocal services. For a hair-dressing a vegetable wax preparation is used, and the hair has quite a polish when properly dressed. A form made of stiff black crape is used which keeps the graceful loops of the bow rigidly in shape. Figures 505 and 506 show the side and back views of Mrs. K. In the back view the hair forms a sharp keel which is kept in place by a whalebone, or iron clip. Figure 507 is of Mrs. T.; a lacquer comb stands transversely on the slender queue turned back from the front. Figure 508 is the back view of figure 507; the square-ended object passing through the bow is a stone, probably jade, after Chinese style. Figure 509 is of the daughter of Mrs. T. Figures 510 and 511 are of Miss I., who is about twelve years old.

Fig. 509

In these a flower hairpin is shown; red crape is fastened inside the loops. It is a very common form for girls of that age. In the street one sees the most poorly dressed girls with their hair beautifully arranged; even little children, four or five years old, will often show that more care is taken with their hair than with their dress, which may even be ragged. A tousled head is not a common sight. In these various styles of hair-dressing a Japanese recognizes different ranks of people: the handmaid (fig. 512), the country girl, the young lady, and certain forms that are considered very

"dressy"; and finally, the very highest classes and royalty; while entirely different forms may be seen in pictures and possibly on the stage.

I visited a Japanese newspaper office in order to see how the composition room was arranged. I had expected to see an immense room, knowing the number of characters used to set up a piece of printed matter, and was astonished to find a room not over thirty feet square. The number of Chinese characters possessed by

Fig. 510

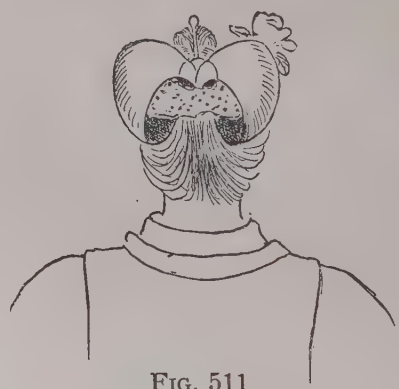


Fig. 511

the office may be counted by thousands. The number of different characters in common use for the newspaper is twelve or thirteen hundred, and there are many hundred more which are rarely used. Besides these there are the type for the Japanese alphabet of forty-eight phonetic signs, and these are often set up beside the Chinese character to spell out the Japanese word in case the reader may not know the meaning of the Chinese character.

Figure 513 represents a portion of a Japanese newspaper, showing the use of the Japanese alphabet. The reader will

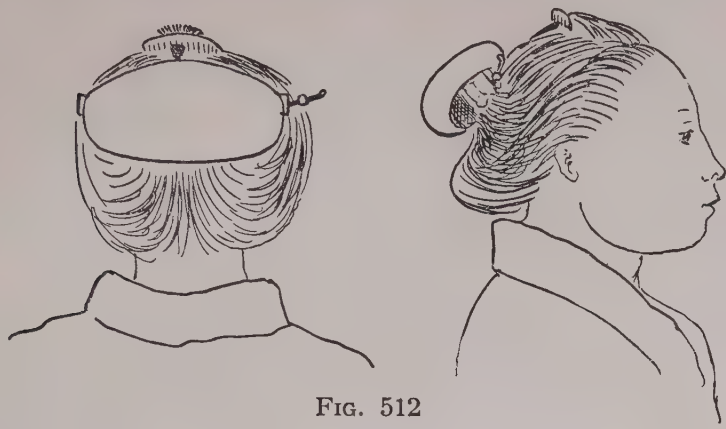
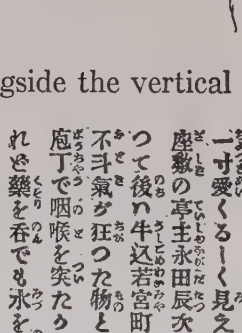


Fig. 512

observe the simple letters running alongside the vertical columns of Chinese type. The cases are different from those of our printers; the boxes are two feet long and eight inches in height divided by vertical partitions. There are sixty-six partitions in each box and the width of the space between the partitions is the width of the type. The types are placed in the partitions with their faces out, so that the compositor may see at a glance the character he wants. A description of the Chinese character is necessary here, but one must refer to a student of Chinese to understand the subject. It may be



○下谷龍泉寺村の田中金之助の女房お兼の妹お勘(三十)い
一寸愛くるしく見えるので去年の八月頃ら新宿町の貸
座敷の亭主永田辰次郎のお摩り屋をして居たのゞ暇よゝ
つて後い牛込若宮町の町中兼次郎方へ止宿よ行て居ると
不斗氣ゞ狂つた物と見え先月廿七日の夜の十一時頃出刃
庖丁で咽喉を突たら此家でも驚いて直ぐ療治いしたけ
れゞ藥を呑でも水を呑でも疵口ゞらダラ〳〵流れ出るや

Fig. 513

said, however, that the Chinese character is composite; that is, in the character there is a radical which classifies it in a way. Thus, every character referring to money, such words as buy, sell, debt, loan, dicker, etc., will have the money radical in it; words referring to feeling, such as passion, hate, love, etc., will have the heart radical in it; and so on; and the characters are

Fig. 514

arranged in these partitions by their radicals. It is a queer sight to see a compositor running from one part of the room to another, holding his "stick" and manuscript in his left hand and with his right hand picking out the character he wants; so different from our printing-office where a man stands at his case with all the letters, a few figures, and punctuation marks in front of him, and never moves from the spot. Here the Japanese compositors, eight of them, are racing back and forth across the room for the proper character. Dressed in dark blue as they were, the appearance of the room reminded one of an

Fig. 515

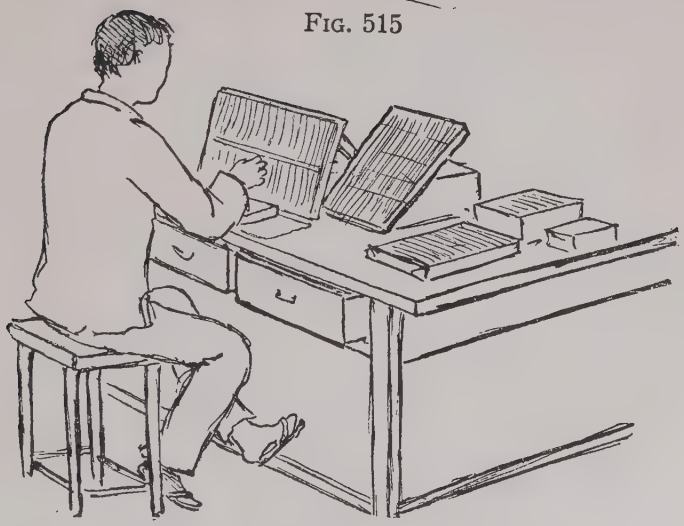


Fig. 516

ant-hill with the black ants ceaselessly passing each other to and fro. Figure 514 represents the composing-room showing the arrangement of the cases, but there were many more men than are represented in the sketch. Figure 515 shows the compositor setting type. The man distributing type (fig. 516) sits

Fig. 517

at a table and with a pair of forceps picks out those characters of the same kind and then returns them to their proper position in one of the many cases.

Figure 517 represents a cut from a daily illustrated newspaper. The drawing is full of action. The subscription price of the paper is twenty cents a month. Figure 518 is a reproduction of a page proof of some book. When the compositor cannot make out the character in the manuscript, he turns the character upside down, and it is printed from the bottom, and the proof-reader, with red brush, marks the proper character in the margin. The characters are set up without spaces, which are put in afterwards. In Japanese manuscripts, if a

character is rubbed out and afterwards it is desired to retain it, the word *iki*, which means "alive," is written in *katakana*. It is curious that in a printing-office they speak of "live" and "dead matter" as with us. In viewing this intricate system

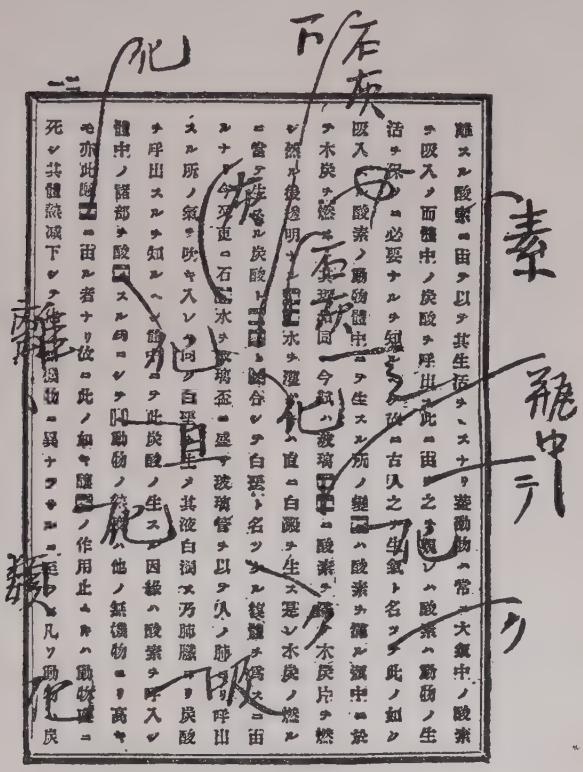


FIG. 518

of printing it would seem that ultimately the Japanese must establish a phonetic system. In this way only can they use the modern type-setting machine. The Chinese character language is a burden to them, and if, at this moment, they could all speak English it would add greatly to their development

along our lines. Those who learn to write English prefer it to their own method. They all say it is much more exact, and the little boys who go to the preparatory school for the University, where they study English, preferably write to one another in English because they can do it more easily. A dear little boy friend of mine always writes to his brother in English, and his brother, who is thirteen years old, is studying

Fig. 519

English and at the same time is studying German in a foreign language school, so that he may enter the Medical School which is conducted in German. He comes to my house every Sunday, and already speaks English very well.

A visit to Mitsui's famous silk store is well worth making, for it is the largest dry-goods store in the city and an immense business is done. To see a big shop without counters or seats is curious. The clerks and salesmen sit in the usual way on

the straw matting, the customers likewise. Entering from the street the customer steps from his sandals on to the raised floor, the sandals being left behind. A cup of tea is immediately served on a tray to every one, whether a purchase is made or not. Figure 519 gives a faint idea of the appearance of this store. To the right is the street and to the left the clerks have access to the huge fireproof buildings from which the goods are brought as wanted. All the attendants

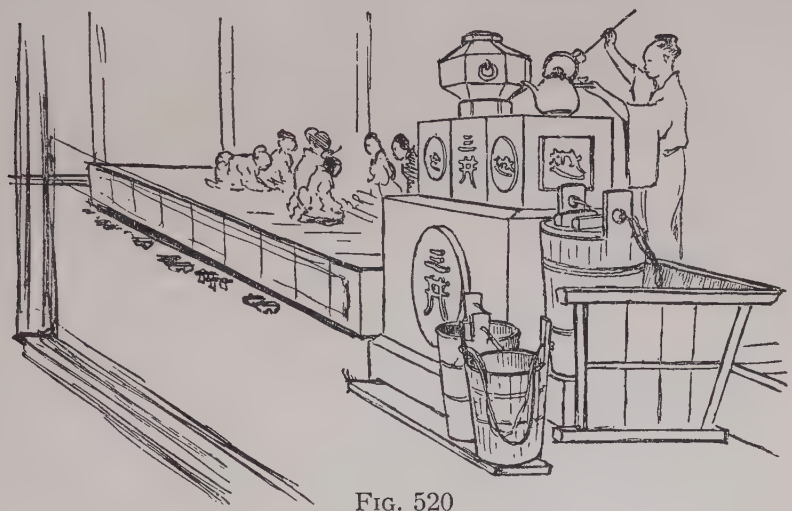


Fig. 520

had their hair dressed in true Japanese style, and running about were little boys, probably cash boys, who at times emitted a curious, prolonged call. The extreme slowness, gravity, and politeness the attendants showed in all their movements contrasted strangely with the crowds and activity in similar places at home. At the farther end of the store was an artistic device of copper. This was the water-boiler, or heater for tea. A man was in constant attendance

making tea and pouring it into cups, and little boys were coming with trays to carry the tea to the customers (fig. 520). Hibachis containing coals of fire were conveniently placed for the smokers, both men and women, though the customers were mostly women. The place was a very interesting sight. All the massive beams above and the woodwork were in natural wood. The brilliant colored silks, brocades, and crape, and the handsomely dressed ladies and children with flowered hairpins, added greatly to the beauty of the scene. In my

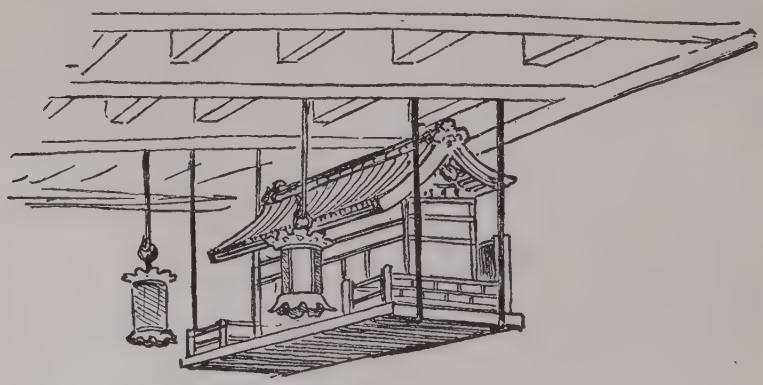


Fig. 521

sketch of the store there should be many more people, but there was no time to make an elaborate drawing. Almost the first object one notices is the unusually large and handsome shrine (fig. 521) hanging from the ceiling, made in the form of a Shinto temple. Every house and every shop has a shrine of some kind exposed in this way before which the inmates pray in the morning. A light, or several lights, are placed in the shrine at night. It was odd to see this sanctuary hanging up in a large store and the proprietors and all

hands praying before it in the morning, whether customers are present or not. I cannot imagine a religious shrine in our large stores with like devotion shown by the proprietors.

Figure 522 represents the latest style of doing up the hair. My daughter noticed the braid, which is entirely new to the Japanese in hair-dressing. It is adopted from the foreigners, particularly from the children with their long braids behind. The face has no resemblance to the pretty woman I had for a subject. I think it is annoying to them to have the face sketched; at all events, I never attempt it, but put the features in afterwards.

Fig. 522

Many of the firemen of the city are house-builders and carpenters, and after extinguishing a fire they hang up the names of those who have helped in the matter, either fire company or individual firemen; then they claim a present from the owners of the building, or the chance of getting the job of rebuilding. Figure 523 is a sketch of a fire-ruined house showing the labels suspended from bamboo poles.

In the bric-à-brac shops, of which there are a great many, one often notices among the lacquers, inlaid work, basketry, and the like, a pottery jar (fig. 524) enclosed in a faded brocade bag (fig. 525). The jar has an ivory cover, and is often exceedingly plain in form and appearance. You are amazed

at the prices asked for some of these jars until you learn that they are among the oldest of pottery. These are known as *chaire*, and are made to hold powdered tea for a certain form of tea-drinking. They are kept in boxes (fig. 526) on the covers of which the names of the object and potter are written. There are many that are comparatively new and low-priced. It requires some time to get familiar with even the common kinds, but the more one studies them the more attractive they appear.

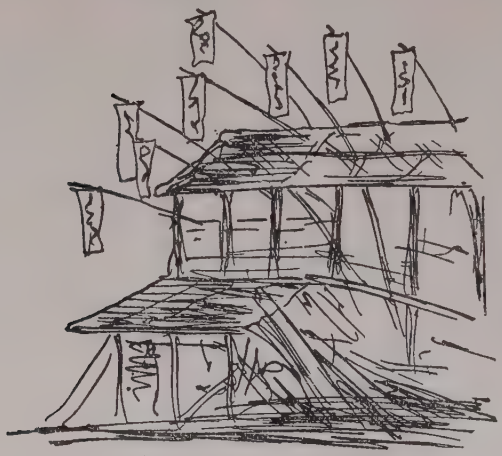


Fig. 523

The Japanese show their artistic ingenuity in tying a great variety of knots to which they give separate names. Many of these knots are ornamental. They are used in tying up presents, bags, scrolls, dresses, and for other purposes. The little pottery jars for holding powdered tea are kept in brocade bags. I learned to tie the knot which closes the mouth of the bag and always awakened the interest and sympathy of the dealer when, having replaced the

Fig. 524

Fig. 525

tea-jar in its bag, I carefully tied the proper knot. I greatly enhanced my opportunities among the dealers of pottery by observing these simple courtesies.

The other evening we were invited to dinner by Dr. Benjamin Smith Lyman, who has made a geological survey of Yezo for the Government. He lives in a Japanese house filled with beautiful screens, bronzes, porcelains, and the like. There were a number of guests present, and we were entertained by Japanese dancing and music, consisting of six *koto*, or harp, players, and a *biwa* player. The biwa is almost out of date, and there are but two or three good players left in Japan, the one we had being one of the great players. Figure 527 is a sketch of this player who was blind. He strikes the strings with a broad ivory plectrum. The samisen players use a device that is similar, but not so wide. The koto players, of whom there were six, men and women, three of whom were blind, were arranged as in figure 528. Their music, which is extremely interesting and pleasing, was indescribable, all playing in unison with a peculiar rhythm, but with no break or pause. Figure 529 represents three playing together. There was on the finger a horn device like an enlarged finger nail.

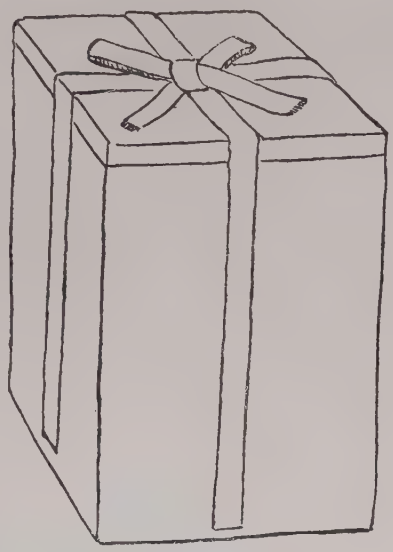


Fig. 526

The various musical instruments figured have all been derived from China originally, coming through Korea. The group of dancing children we had seen before at a tea-house some months ago, and when we came into another room from dinner they looked surprised and delighted and rushed to us, and we were pleased to see them. Their ages were three, four, five, and six. There were two attendants. Figure 530 gives an idea of them. The samisen player is shown in figure 531.

Fig. 527

The boys' dress, with its obi and long sleeves, resembles a girl's dress, and it takes some time to distinguish the sexes, though, of course, the hair instantly betrays the difference. The hakama is a kind of divided skirt with a stiffened appen-

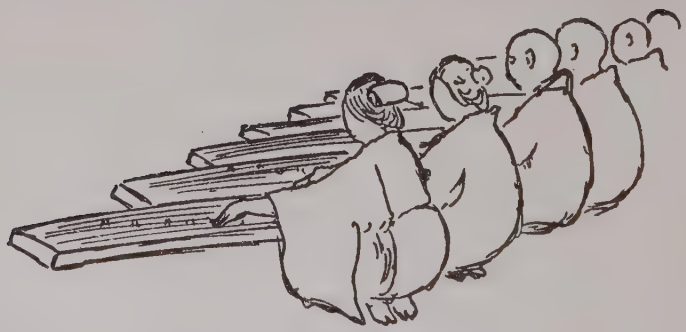


Fig. 528

dage behind like a short inverted unsplit coat tail, from the edges of which a band extends and is tied in front. This

only the samurai class was permitted to wear, but, curiously enough, school-girls could wear this garment if they were the

Fig. 529

daughters of samurai, and when wearing it to school, as they sometimes do, it is indeed hard to distinguish them from boys. It is in every way a graceful and an easy garment to wear. Figure 532 represents a boy fourteen years old wearing the hakama.

The other night I ran and walked nearly three miles to a fire on the outskirts of Tokyo toward the west and arrived there in time to see the last house catch fire and burn up. It was a remarkable and brilliant sight. The fire burned a row of large houses with heavy thatched roofs of straw, and as the wind was blowing a gale great masses of the thatched roof floated away in the air, resembling clouds of golden threads, and when the roof finally fell

Fig. 530

in the shower of sparks that drifted away was like a storm of golden snow. It was amazing to see how rapidly the houses melted away as soon as the fire got inside. I again witnessed the bravery and heat endurance of the firemen. At a distance of at least three hundred feet from one building the heat was so intense that it was impossible to look at the fire except through the openings between my fingers; yet the firemen were within ten feet of the blaze, and only retreated when their clothing was actually in flames, and even this condition they did not seem to notice until streams of water were directed on them. When I started to the fire, running through the dark streets, I asked a man where the fire was, and my Japanese was promptly understood, for he answered "Sukoshi mate" (Wait a little). I ran along with him until we came to a police station, and there posted up outside was a notice stating the place of the fire and what was burning, and this was certainly not more than ten or fifteen minutes after the alarm. I observed the same notice at other police stations which we passed.

Fig. 531

Of course I could not read it, but the details were given to me by the man whom I had encountered. On inquiry about it the next day I heard it was customary to post a message on the bulletin boards at all police stations, and at the earliest possible moment, the position and character of the fire.

Fig. 532

One often notices the city workmen repairing the streets, but in this work attending only to the middle third of the street. On inquiry it was learned that the city looks after the middle third of the road, the abutters on either side taking care of the other thirds. In a similar way we are compelled to clear our sidewalk. It is amazing to see how honestly this work is performed by all, in contrast to the way our people often neglect clearing the snow.

This morning (April 8) at five o'clock the fire-alarm bell rang, and as there was a gale blowing I dressed immediately and ran a distance of two miles, arriving too late to witness the struggle of the firemen. There were, however, interesting things to see. The extent of the conflagration showed how rapidly it had spread, and the wooden buildings partly

burned indicated that the work of the firemen was not so trivial as foreigners supposed it to be; at least to check the fire in a high gale must have required great effort and skill.

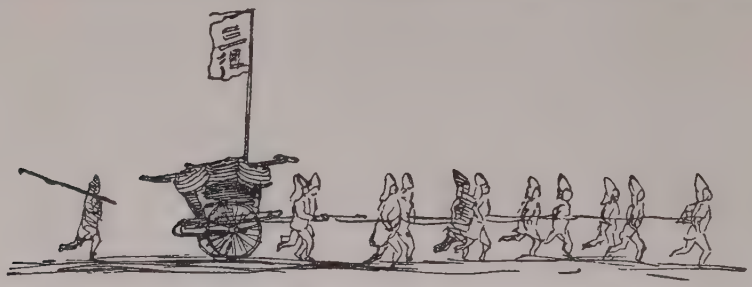


Fig. 533

The fact is that their houses are so frail that as soon as a fire starts it spreads with the greatest rapidity, and the main work of the firemen, aided by citizens, is in denuding a house of everything that can be stripped from it: partition-screens, floor mats, and the ceiling, which is of thin cedar board. It seems ridiculous to see them shoveling off the thick roofing tiles, the only fireproof covering the house has; but this is to enable them to tear off the roofing boards, and one observes that the fire then does not spring from rafter to rafter. The more one studies the subject the more one realizes that the first impressions of the fireman's work are wrong, and a respect for his skill rapidly increases. I

Fig. 534

saw for the first time a new type of fire engine belonging to the police department mounted on a two-wheeled cart with hose attached and coiled on the engine. It draws water and plays a good stream. The engine is taken from the cart and manned by six or seven men. It is a recent adaptation from a foreign model. Figure 533 represents one going to a fire,

Fig. 535

and as the firemen run along the streets they howl like cats. Figure 534 represents firemen hanging out the names of engine companies who saved the building as it stands.

Shortly after this fire another one occurred and as the wind was blowing with violence I ran to it. I made another attempt at a sketch, but with such a moving crowd of people jostling each other and me, and with other interruptions, a poor drawing was made (fig. 535). The quiet way in which the sufferers of these calamities take their misfortunes is interesting; not a face that is not amiable and smiling. It is curious to see women cry at the theatres and yet be so stoical

at the complete destruction of their dwellings in a conflagration. With their belongings they erect a sort of wall made out of partition-screens, a bureau, and mats standing up, and behind these the family are gathered; fire is in the hibachi and water is being warmed for tea, and a little bonfire enables them to broil a fish or to make a little soup, and in the open air, which is not cold except in winter, they seem just as happy as ever.

CHAPTER XVI

TO NAGASAKI AND KAGOSHIMA

For some time I have been getting dredges, jars, and other things together for a trip south. The University allows me to go earlier than the summer vacation and will pay all expenses of the expedition. We are to dredge in Kagoshima Gulf, Nagasaki, and Kobe, and as the fauna is semi-tropical much new material will be obtained for the University Museum. We left Yokohama for Kobe on May 9, 1879. The discomforts of the voyage in a rough sea and a head wind may be left unchronicled. We were in sight of land during the whole trip, though I saw little of it. Leaving on Wednesday night we reached Kobe at three o'clock Friday afternoon. As soon as the steps were lowered, I landed in a little boat and rushed to a hotel for something to eat, and after that I took a stroll about the town. The town is backed by high hills; the streets are rather narrow, and the shops differ in no respect from those of Tokyo. The women seemed to dress their hair a little differently from those farther north, but I could carry away no idea of its arrangement and I was too tired to attempt a sketch. The children are certainly much prettier than the Tokyo children; a more refined cut of features, a clearer olive complexion. They all bang their hair in the most pronounced style, and this is an old Japanese custom and not adopted from the foreigner. The jinrikishas were a little more clumsy-looking than those in Tokyo, and the

men seemed stouter and better-looking. The lantern is hung at the base of the shaft and not carried in the hand as in the north. A few beggars were seen, but they are not insistent; a mild type, so to speak. The drays in the streets have two solid wheels and are dragged by long ropes, one or two men balancing the load behind. I did not hear a man grunt or sing in pulling the loads, as they do so energetically in Yokohama. The ox-teams are odd-looking affairs; one wheel in front and two wheels behind, and the ox has a saddle to which the shafts are attached. It seems strange in a distance of three hundred miles to see so many differences in habits and customs.

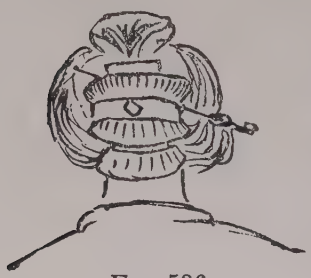


Fig. 536

I managed to run behind a jinrikisha and get the style of hair of a grown woman; the bows are much smaller than in Tokyo and are flattened against the head (fig. 536). The dressing of the children's hair is markedly different from the style in Tokyo. Figure 537 shows the style for little girls eight to ten years old. These were hastily sketched on the street, a difficult matter as you walk along, because they watch you so persistently that you get no chance, and if they find that they are the subject of the sketch, instead of some object down the street, they hastily run away.

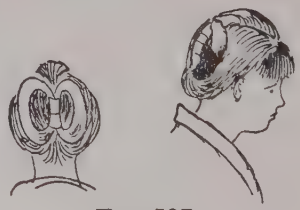


Fig. 537

At Kobe the hotel stands near the water, and from my

window I managed to get a sketch of a Japanese junk unloading (fig. 538). These vessels will rapidly disappear, as the Japanese are now building after foreign models. A fifteen-minute walk from the hotel brought me to a glen remarkable for its beautiful cascades, reminding one of certain spots in the White Mountains. It was impossible to sketch the

Fig. 538

scenery, but what impressed me was the exquisite rustic bridges, the charming little tea-houses perched upon the edges of precipitous points, and the gayly dressed girls inviting you to a cup of tea.

My party consisted of my assistant, Mr. Tanada, the servant also, and Professor Yatabe's servant, Tomi, who is very skillful in collecting plants and neatly pressing them. My servant is as good in collecting shells, and Mr. Tanada looks after everything and acts as interpreter and translator besides being a good collector. On our way back from the falls

we collected a number of shells, among them a species of *Pupa*, the first I have seen in Japan, which reminds me of a Philippine species. As we entered Kobe again by an obscure street, the poorest quarter, we passed a row of houses, and by looking through the gloom of these dark hovels I could see the little sunlit gardens beyond, indicating that even among the poorest classes a taste for such things is universal.

FIG. 539

In the afternoon we went aboard the steamer bound for Nagasaki. From the deck I made a hasty sketch of Kobe (fig. 539) with the hills back of the town. These hills are said to be not over nine hundred feet high, but the captain of the steamer thought they were much higher. The sail was very beautiful, but we were to pass through the Inland Sea at night, and this is considered one of the most beautiful sails in the world. In the night I went on deck at a time when the steamer was passing by a great number of Japanese fishing boats. The fishermen blew their shell horns as the fishermen at home blow their tin horns; having no lights they burned shavings of wood which made fitful glares here and there over

the water. The darkness was impenetrable, and the blasts of the horns and the flashes of light kept up till the steamer was abreast of the boats, when one after the other the lights went out and the noise ceased. So in front was this curious racket of many horns with lights flaring here and there, while astern not a sound was heard, nor a light seen. It was as if the steamer had engulfed them all. The approach of our steamer must have been alarming to the fishermen, with the dash of the paddle wheels heard afar off and the danger of collision approaching nearer and nearer. As it dashed by with whistle blowing, with the splash of the wheels, with the steam, the smoke, the lights, and the tremendous waves marching in echelon from the bow, and the thoughts of the dire results of a collision with such a monster, — the very passing of it was an alarming experience.

The next morning it rained hard and everything was obscured. At two o'clock in the afternoon we passed through the Straits of Shimonoseki, and the thought of the great wrong inflicted on these people by the four great nations in the bombardment of the forts and town and the subsequent robbery of $3,000,000 exacted as an indemnity made me ashamed of the so-called civilized races.[1] Figure 540 is a hasty sketch of the town of Shimonoseki. It rained so hard and was so thick during our short stop in the Straits that I could get only hasty outlines looking toward the Inland Sea (fig. 541).

At seven o'clock in the evening we started again and

[1] Years after, the United States alone returned its portion of the indemnity, as an act of justice which the Japanese fully appreciated.

passed out of the Straits and into the ocean once more. Densely foggy and with some sea on, we were to sail all night along a coast studded with rocks and islands. Among the

Fig. 540

passengers was a Catholic bishop with whom I had an interesting talk. He was a Franciscan priest when he came from Paris nineteen years ago; since then he has been made a bishop and had attended the great encyclical council at Rome. He had a fine-looking head and great, sympathetic eyes. I asked him how many Catholic converts there were in Japan after his nineteen years' work with so many other priests laboring in the same field, and he thought there might be 20,000. Reducing this number a few thousand on account

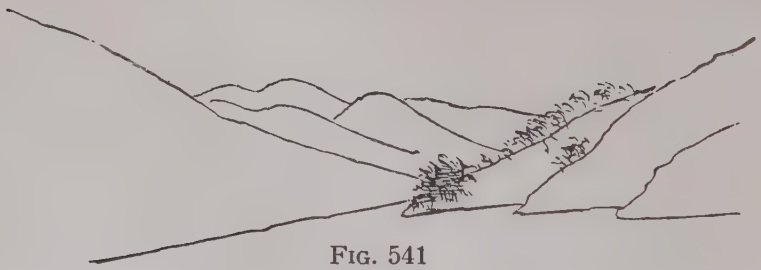


Fig. 541

of his enthusiasm, I tried to compute how long it would take to convert the 33,000,000, and on the whole how much better the efforts of conversion would be among the sinners of his

own people in whose language he could appeal, and to those who may have remembered a mother's prayer. Moreover, in this way the manners and behavior of foreigners who came in contact with the Japanese might leave a more favorable impression in the treaty ports. The bishop was a trained scholar; he was fluent in English, French, and Japanese, and of course Latin was like a mother's tongue to him. I asked him the amount he received, and he said twenty dollars a month. The priests are paid ten dollars a month. They get contributions from France for their schools and Sisters of Charity, and are very saving, even walking instead of riding. It is true they are unmarried and have only themselves to support. The Protestant missionaries get a thousand dollars a year, and if married fifty dollars extra for every child born to them. I told the bishop I was in irreconcilable antagonism to his church, but he nevertheless smoked with me and did not break into tears out of simple kindliness of heart at my awful doom when he bade me good-bye. But what a wonder and a force is this great Church, and how united and powerful it is when a Catholic can find his Church with identical service and belief in every part of the world! How much more effective the Protestant churches would be if all the various branches could unite in a few simple acts of devotion, dropping all the petty dogmas that now separate them!

Up early the next morning to see our approach to Nagasaki. How strange were the headlands and the little islands off the coast rising out of the water in grotesque shapes. The shores are all mountainous, and most of the hills and mountains are terraced to their very summits. Crops of corn, wheat, and

rice in horizontal patches are seen in every direction. The novelty and beauty of it all are indescribable. Figure 542 is of one of the odd projections sixteen miles from Nagasaki; it is one hundred and fifty feet high. A narrow opening is seen through the centre and the fissure springing from it extends to the top. That shown in figure 543 is farther off, but is marked on the chart as two hundred and fifty feet high.

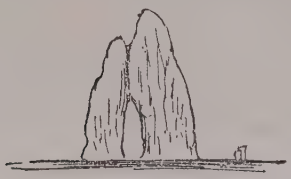


Fig. 542

For the first time I saw the flying fish. The first two were flying near together, and I mistook them for birds trying to fly out of the water, as ducks appear when they first rise. I could hear their fins strike the water, or possibly it was the caudal fin which was rapidly swinging back and forth and appeared like a peculiar tail feather. I did not realize that they were flying fish until they disappeared. The actual flight of the animal was unquestionable. Eagerly I watched for the next one, and fortunately it arose directly under the bow and flew a distance of at least five hundred feet, first in a straight line, then just before dropping into the water curving gracefully. It flew very rapidly at precisely the same height above the water, about a foot and a half, and with the most exquisite grace. The steadiness of the flight reminded me of that of a dragonfly. I had no idea from the descriptions that it was such a beautiful sight.

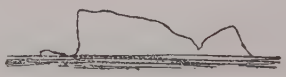


Fig. 543

We anchored in the harbor of Nagasaki at eight in the

morning, and I hastened ashore to make an official call on the Governor and to explain the object of our mission, which was to dredge in the harbor and surrounding waters and to collect material for the museum of the Imperial University. To facilitate our work it was necessary to secure a good room for a laboratory. In less than an hour a large room was found for us in the custom house.[1] We got our dredges, ropes, cans, bottles, and other material unpacked and I found time to visit a local exhibition.

May 13. We did some great dredging. Our boat's crew consisted of two men and a woman who sculled as vigorously as the men. Hereabouts the women work at all the things the men do — lugging coal, loading vessels, and rowing boats. It was difficult to concentrate on the work at hand, as my eyes continually turned away from the dredging to the magnificent views — the long bay hemmed in by high hills, green with foliage from the water to the summits, and the little houses, temples, shrines, hidden in the trees, with flights of stone steps leading up to them. I was pulling up with my dredge tropical shells, echinoderms, crustaceans, and forms unfamiliar to me, yet it was hard to turn away from the contemplation of such beautiful vistas to bury my head in the mud of the dredge.

In the afternoon we went down the harbor shore collecting at low tide, turning over large stones and getting many interesting species of shells. We had a boat's crew of three men, who joined in our efforts as if they had always been collectors.

[1] I mention this incident to show the prompt and businesslike way of the Japanese official, for everywhere I have had the same experience.

No one who is not a collector can realize the delight of picking up rare tropical shells of species entirely new to him. We worked till dark and came back with a strong wind astern. To-morrow we are to have a larger boat with four men to scull and are to go down the harbor several miles.

Let me record here briefly that Nagasaki has narrow streets, most of them paved with long rectangular stones over which jinrikisha wheels roll very smoothly. The oxen have long strings of bells hanging down on their flanks, and as they walk along the sound reminds one of the jingling sleighbells of New England; ten times louder, however. The people of Nagasaki by their long association with foreigners are not so polite as are the inhabitants farther north. They are not rude, but there is no "thank you," and but little bowing, and when I thank them in a shop for showing me anything they look astonished as if they had never been treated civilly by a foreigner. The little experience I have had here shows me that the foreigners are sharp and severe with their Japanese servants, speaking sternly to them and scolding them for the slightest fault. The jinrikishas are of a new type, the covering resembling an old-fashioned sunbonnet. The boys call after you "Horanda san!" "Horanda san!" It means "Hollander Mr."

Fig. 544

The children's heads are shaved in a peculiar style, as may be seen in figure 544. They have the appearance of being influenced by the Chinese.

Figure 545 shows a farmer going to his work carrying a plough on his shoulder. It is dragged by a

single bull. The point is tipped with iron and the plough is typical of the region, for there are many types of ploughs in different parts of the country.

Figure 546 illustrates a stone wall peculiar to Nagasaki. It is made of round worn stones brought up from the beach and laid in white mortar, smoothed carefully, and a coping of roofing tiles completes it. The smooth stones make a wall difficult to climb. The kinds of walls and fences in Japan are innumerable and one could make an interesting study of fences alone.

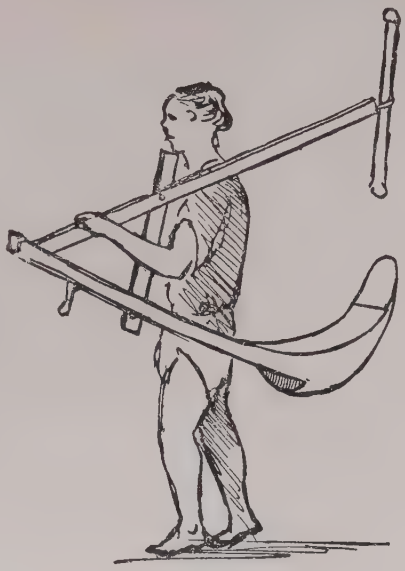


Fig. 545

May 17 we walked across the peninsula to Mogi, a distance of seven miles, taking the dredge, ropes, seines, etc., on a horse's back. The road was paved the entire distance with rocks and stones, smooth enough in some places and in other places very rough. We first climbed a very steep hill. Most of the narrow path was of rough stone steps, and it was interesting to see how the horse walked up these steps, and we met bulls coming

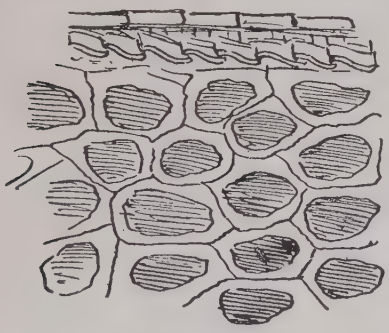


Fig. 546

down. We overtook a bull with his cumbersome pack, a man as usual leading the creature. The path was narrow and muddy and the bull with his burden filled the entire path.

Fig. 547

At one place the bushes on the side were not so thick, and I managed to get ahead by jumping rapidly and darting along the gutter, but the suddenness of my approach and my big white sun hat frightened the bull, and the creature began to dance and kick, and the driver was scared out of his wits; he jumped as if the mountain was falling on him. It was amusing to hear his amazed utterances and protestations long after we had passed him.

Fig. 548

Most interesting features are the terraces held up by huge stone walls and marking the landscape everywhere. These walls sustain level patches of land for cultivation, the irrigation coming from a mountain stream and the water running from terrace to terrace. The sides of these otherwise barren hills resembled a garden, a city park in fact.

We at last reached the village of Mogi and found our way to the principal inn. Figure 547 is a sketch of a few houses opposite the inn close to the water's edge. The tide being out we rushed to the shore to collect.

Fig. 549

Figure 548 shows a stone-arched bridge on the road to Mogi. In the village the road is bordered by a high stone wall, and as I followed along this wall to find an open space to the shore, I passed through a school yard where the boys were out at recess and were all flying kites from the wall. They all looked at me intently, and when I got by they began shouting in unison, "Horanda san," "Horanda san." The village of Mogi is hemmed in by high hills as shown in figure 549. The bluffs along the shore beyond Mogi are so curiously shaped that one wonders if these strange features are due to volcanic agencies. Certainly denudation has left mountain outlines of the most extraordinary shapes (fig. 550).

Fig. 550

As in Catholic countries one sees symbols of the Church along the road, so in Japan one sees Buddhistic symbols and shrines everywhere. Along the shore at Mogi were stone shrines, the doors being of stone, and before these the fishermen pray. Figure 551 represents two of these, the tallest being three feet high.

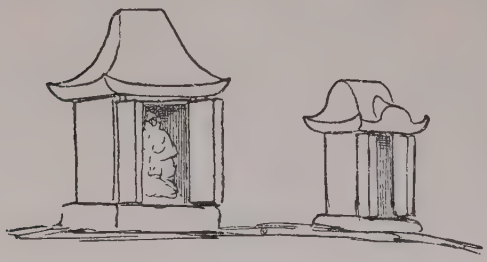


Fig. 551

On a bridge crossing a creek in the village a number of boys were flying kites, in some cases from the ends of long bamboo poles. By such means a breeze could be reached, and an easier hold on the kite was secured (fig. 552). The bridge looked very unsafe, as there were no side rails.

We returned to Nagasaki, and after packing up the results of our day's collecting, we flung ourselves on the mats, tired out. The steamer was to sail for Higo and Satsuma Sunday

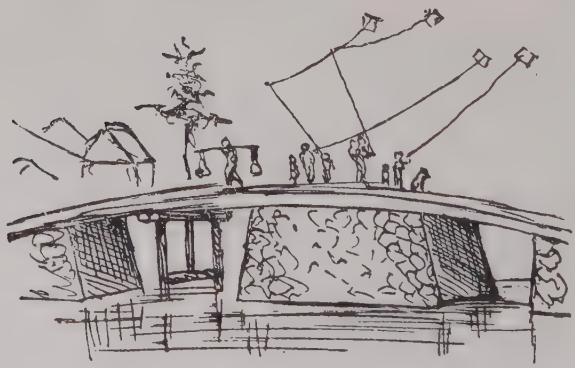


Fig. 552

night, so all day we were ashore collecting and packing up dredges and other material. The mail did not get in from Yokohama when expected and we had to go without it. We left the shore at midnight in a small boat to board the steamer which lay out in the harbor. It rained torrents and it was darkness impenetrable, and it seemed impossible that our little Japanese boatman could find his way. As soon as we

Fig. 553

boarded the steamer we got to our berths completely exhausted. The next day it rained. We were off the shores of Higo at noon and anchored at a distance of five miles from the shore, as the water was so shallow. As the vessel was to stay all the next day to take on a cargo of rice, we all landed in a heavy rain and collected along the rocks lining the shore, getting drenched to the skin. We had to walk six miles along a narrow river in a narrow and very muddy path to the village of Takahashi, where we were to spend the night. The river

boatmen stared at me as I passed, and even discovered us long before they reached us. They continued to look till we were out of sight, though they were all very civil and polite.

Figure 553 is a rough sketch of Takahashi from our inn. The houses border the river and there is a grove of bamboo on the opposite bank. Figure 554 shows a street in Takahashi,

Fig. 554

narrow and muddy. We took a boat down the river to the sea, and as the tide was up collected from the piles of shells near the fishermen's huts, getting many fine specimens in perfect condition. Imagine my amazement upon finding on one of the refuse piles a large number of the shells of the large green *Lingula anatina!* The animal had been used for food, and I ran around like a maniac to find somebody who could tell me where they were dug. I soon learned that they were dug at low tide and were a common article of food. Here was the

creature that alone had brought me first to Japan, and for the moment I felt like abandoning everything to devote my whole attention to this ancient worm. However, that would not do, but I shall come back to this place after the Satsuma work is over.

When we left the Higo coast a fisherman came alongside, and in the boat, among other crabs and shrimps, I got a hundred specimens of a curious crab with the two posterior pairs of legs apparently out of place and turning upward from the thoracic region. At last I found one covered by a circular bivalve shell (*Docinia*), the function of the two little claws being to hold it on the back (fig. 555). The back of the crab has a grotesque resemblance to a human face, and there is a legend connected with this, which the fisherman endeavored to tell me.[1]

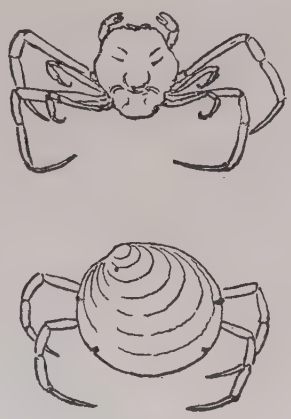


Fig. 555

As has been mentioned, the foreign traveler in Japan never fails to notice the innumerable ways in which the bamboo is utilized, not only in the most delicate devices, such as the sticks of a fan, but in water conductors for a house. Figure 556 shows a dipper made entirely of bamboo and composed of three pieces, the water-holder, the handle, and the pin; solid, durable, and light, and probably costing a cent.

[1] This crab is known as *Heike gani*, and in the valuable work of Joly entitled *Legends in Japanese Art*, it is recorded that Heike gani are tiny crabs to which attaches a curious legend verging on superstition: they are popularly credited with being the ghostly remains of the Heike warriors killed at the battle of Dan-no-ura by the Minamoto (Genji) in 1185. For additional details see the above work, p. 115.

The steamer was all day getting the cargo of rice aboard, which came out in lighters in the peculiar bags of matting so characteristic of Japan. This delay gave me an opportunity to sketch the distant mountains. The entire coast of Higo is extremely mountainous, as will be seen by a few sketches here given. It is volcanic and is considered very dangerous to navigation, as hidden rocks and sharp peaks are met with. The mountains are not over four thousand or five thousand feet high, those near the coastline being perhaps fifteen hundred to two thousand feet. I managed to draw a fairly accurate outline of the mountains as seen from the steamer.

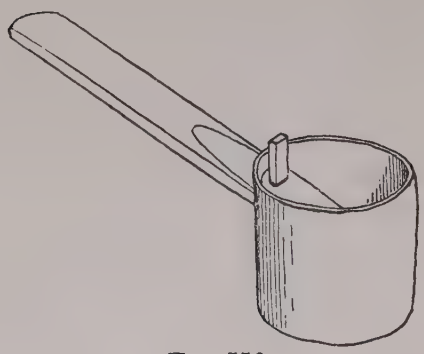


Fig. 556

As we sailed along the coast there was a grand panorama of mountain scenery. As we got farther south many mountains seemed to rise directly from the water's edge, nearly all of them volcanic, many of them having smoking craters or steaming sulphur springs. In figure 557 an idea of the mountain ranges is given. As we reached the coast of Satsuma the mountain scenery still continued, but the mountains seemed more precipitous and the rocks near the shore more jagged than those farther north. Figure 558 gives an idea of the character of these mountains and crags along the Satsuma coast. Figure 559 shows the appearance of Nomagasaki as we approached it going south — a remarkable series of craggy peaks.

FIG. 557 [1]

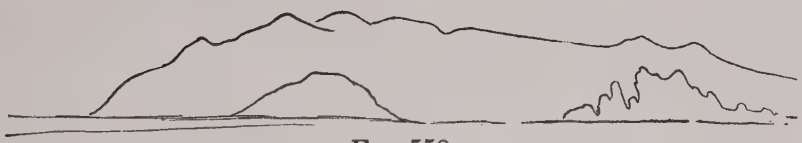


FIG. 558

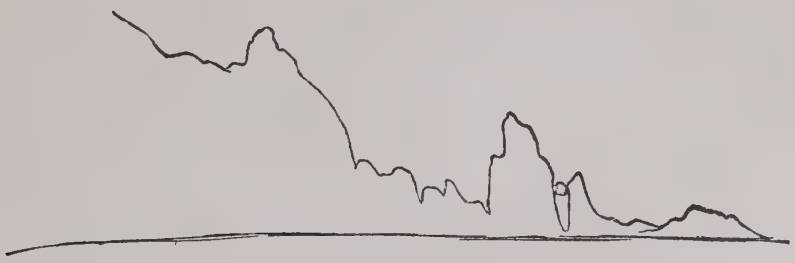


FIG. 559

[1] Figure 557 (*a*, *b*, *c*) represents a continuous range of hills.

This promontory we rounded as we approached the entrance of Kagoshima Bay. Figure 560 represents an isolated peak rising from the water at the southern end of Satsuma.

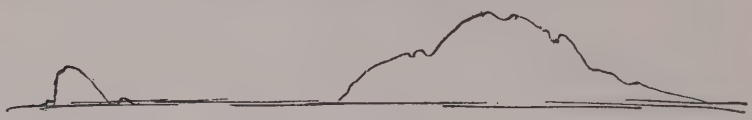


Fig. 560

While our steamer was taking in its cargo of rice yesterday a Japanese junk was lying alongside and I had a good opportunity to sketch her. The curious stern with a deep recess, in which the huge rudder plays, the square rail behind, and other details make the vessel unique in its way. Figure 561 is a stern view of the vessel, and figure 562 is a view looking at the stern from inside, showing how the place is utilized; the tiller has been removed. Among the details is a little charcoal stove or hibachi for cooking, and a little cupboard with sliding doors which represents the cook's galley.

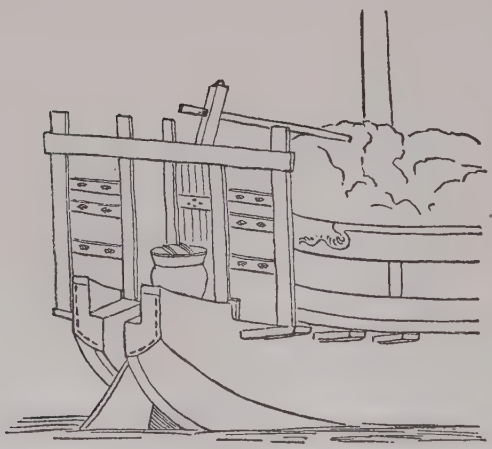


Fig. 561

Some of the junks are ornamented with delicate carving. Figure 563 shows the design on the bow, cut into the wood,

the lines wide and deeply cut and colored green, but beyond this there is not a touch of paint or stain on the whole vessel. The woodwork is of immaculate cleanliness and one always sees some of the crew scrubbing. Many of the passenger junks are prettily ornamented with a variety of diaper in geometric patterns. Some of the old junks appear quite grand after you get used to their odd appearance. They are said to be very unseaworthy and having no keel they cannot keep up to the wind; as a consequence these vessels sail near the shore and rush to cover on the approach of a storm.

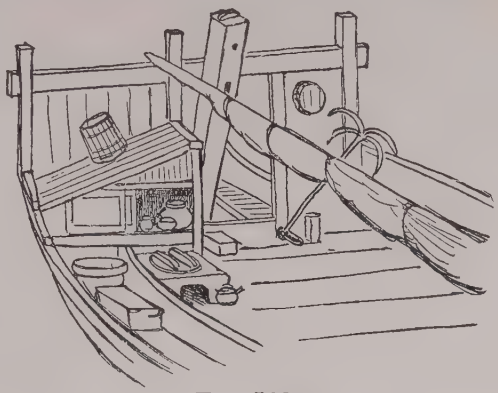


Fig. 562

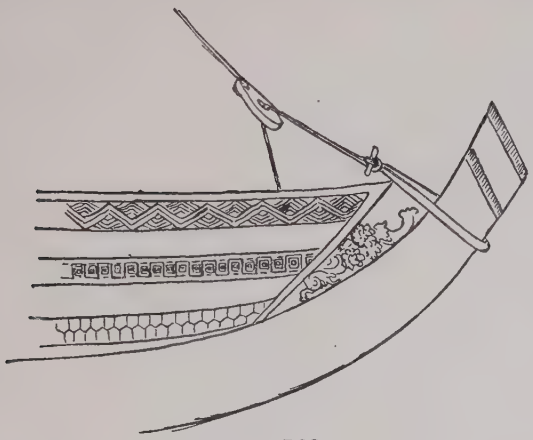


Fig. 563

The Satsuma fishing boats, which are said to sail very fast, are odd-looking craft with their sails of varying height from bow to stern. Figure 564 is the roughest suggestion of their appearance. The sides of the vessel are

lumbered with oars, nets, poles, etc., and as they sailed rapidly past us I could get only the hastiest idea of them. There are three masts, the middle one being held up by the other two in some mysterious way. The primitive and even flimsy way in which the sails are rigged is remarkable, and yet they never seem to come down unless they are pulled down.

At dark I went to bed, but lay awake to see our entrance into the Bay of Kagoshima, lat. 31°. At midnight, I was on deck again, but a far more interesting sight than the entrance to the Bay was the phosphorescence of the sea. It was startling in its brilliancy, and what was very remarkable, the dim and ghostly outline of every fish, big and little, was clearly defined by the phosphorescent material they stirred up. I hung over the bow to see better this wonderful exhibition. A shark, like a ghost, went beneath the vessel, a skeleton fish with a spectre-lit path, every turn and dodge dimly outlined. Some fish darted away from the vessel's side like a rocket, leaving a straight shaft of light; other fish would get confused and return. So clearly were the fish depicted and illuminated that an ichthyologist would have been able to identify every one. At a distance I noticed a sharp line of light in the water which I supposed was the shore, but the shore-line was far beyond. As we neared the line I saw that it was a dense mass of the phosphorescent material bordering some current in the sea and consisting of the embryos of marine worms, jelly fish, and

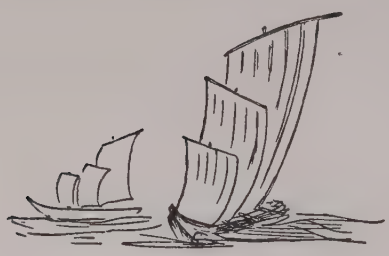


Fig. 564

the like. As the boat surged through it the effect was indescribably beautiful. It illuminated our faces as we looked over the side of the vessel. The light was literally dazzling, and yet the color was a light sea green. It reminded one of the brilliancy of a Geissler's tube, and after we passed it, as the successive waves of the steamer's track reached it, brilliant flashes of light came out from the dark waters. This is the first time I have seen the tropical phosphorescence, and it seems impossible that it has ever been described with exaggeration.

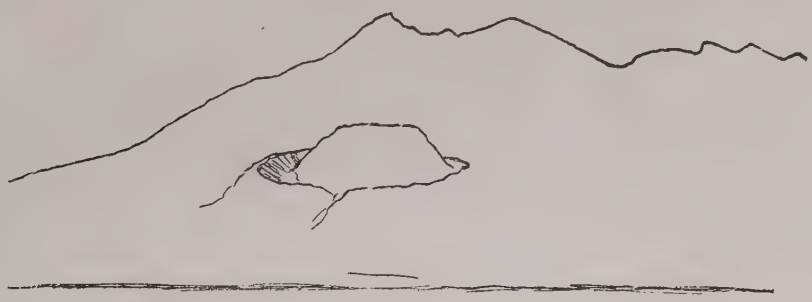


Fig. 565

It was soon daylight and the scenery was so beautiful that it was impossible to go down to our hot, close cabins. We landed in a small boat from the steamer at six o'clock. The scenery about Kagoshima is magnificent. Directly in front of the town, and not far away, there rises from the waters of the Bay a grand mountain with its peak shrouded in mist. This is the famous Sakurajima, or Cherry-tree Island (fig. 565). Figure 566 is an outline of Sakurajima yama, opposite Kagoshima, sketched from Tarumizu on the west coast of the Bay, eight miles south of Kagoshima. Looking across the Bay to the west a very high volcanic peak, known as

Kaimondake, having the symmetry of Fujiyama, forms an imposing feature in the landscape. The slope as represented is no doubt too steep, but that is the way it appeared to me (fig. 567). Back of the city low hills arise.

Fig. 566

In the midst of these charming surroundings it was exasperating that our itinerary allowed us but this one day, as the steamer returned to Nagasaki early the next morning. The city itself, newly built, is bounded along the water by

Fig. 567

an immense stone wall. The houses are poor and very cheap. The entire city was reduced to ashes in the Satsuma rebellion two years ago, and the people are poor, the streets muddy and treeless, and many of the houses were still temporary

shelters. It was bombarded by the English ten or twelve years ago to avenge the killing of a bumptious Englishman, who, despite the warning of his friends, insisted upon intruding himself upon a procession of the Daimyo of Satsuma on its way to the Capital. That foreigners were naturally disliked could be plainly seen by the hostile looks of the men; that foreigners were great strangers I could see by the way in which the women and children stared at me. In fact, I felt uncomfortable during my stay there, as I was the only foreigner within two hundred miles of the place. This proud town was also suffering from an epidemic of Asiatic cholera, but we did not learn it till some hours after. We were directed to a wretched tea-house where the food was so poor that I could eat only the rice. How I longed for a cup of coffee!

After this depressing meal I took my assistant and went collecting along the shores and sea wall of the town, sending the two boys into the hills back of the town for land snails. It was hot and sultry, and in our collecting we came across piles of garbage and refuse of the town, a most unusual sight. We got many fine specimens of a peculiar bivalve and also some carrion-eating snails. We got a great many *Auricula*, *Melampus*, and one *Truncatella* in the refuse piles. The stench was dreadful, and I wondered at it, as Japanese towns are generally so clean. On our way back we went to the telegraph office, and there saw posted up in Japanese a warning notice which read, "Cholera is now prevalent; be careful"! I must confess I felt uncomfortable the whole day knowing how I had exposed myself overhauling garbage heaps on a nearly empty stomach, compelled to live on Japanese food of the

poorest quality, and so thirsty all the time that I had to drink water once in a while.

I called on the Governor of the Ken and told him the object of my visit, and he detailed a very pleasant Japanese officer as an assistant for me during our brief stay. He also found us a clean, pleasant place to spend the night. At noon he had a boat engaged, with a crew of four naked men, who not only sculled vigorously, but took an interest in the dredging and helped pick over the dredging material. The Satsuma boat is the most efficient boat of its kind, — one of the fastest I have yet seen, and as clean as a kitchen floor when that is clean and dry. The forward end is wrought out of a single block of wood, as shown in figure 568; a plan of the boat is shown to the right in outline. We dredged till dark and got many good things.

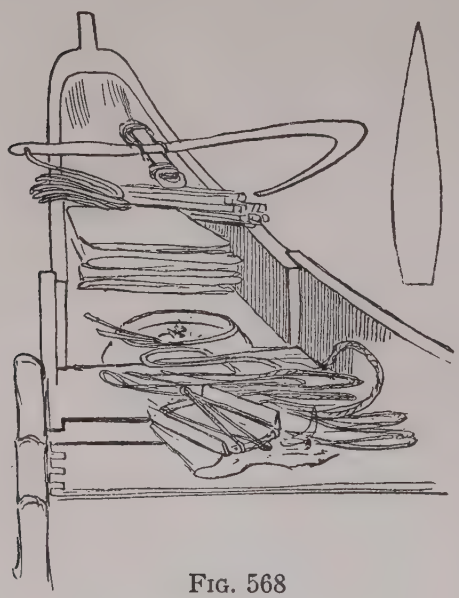


Fig. 568

The next morning we were to go down the Bay ten or twelve miles to dredge and collect along the shore. The officer selected by the Governor to accompany us described to me a deposit of shells high up on the land which the people were burning for lime, and from his description I decided it

must be an ancient shell heap. We were up at four o'clock, and after getting things together we started down the Bay. A long row — for there was no wind — brought us to a very picturesque place, Mototarumizu, on the eastern side of the Bay. The government officer landed with me, while Mr. Tanada and the servant started off dredging. Foreigners never come here, and the inhabitants turned out *en masse* to see me as I passed through the little fishing villages bordering the shore. I recall a delicious drink of water from a mountain stream. We walked nearly three miles round the shores of the Bay to the supposed shell heap. It was indeed a shell heap, but not an artificial one, for it was a huge deposit of beach-worn shells. An upheaval of the coast within comparatively recent times had placed them at a considerable elevation above the water-level. Darwin, in his "Voyage of a Naturalist," describes similar upraised beaches at Coquimbo, in Chile. It was a further indication of the volcanic character of the country as shown by the mountain contours. The walk had been of the greatest interest, for all the old-time customs prevailed; children stopped their play and bowed to me politely; men and women suspended their work to bow as I passed; and these bows were as politely returned, for practice had made me an adept in the Japanese form. We met men on horseback with saddles and stirrups in the Japanese style; everything purely Japanese. In passing a back yard I noticed the typical well-sweep of New England (fig. 569).[1]

[1] Though the sketch has been reproduced in *Japanese Homes*, I cannot refrain from again presenting it.

A rude sort of stable is shown in figure 570. In Japan the horse, instead of going into the stall head first, is always backed in.

On our return to the landing-place we stopped at a gentleman's house to examine some old pottery. The officer had told the people that I was greatly interested in old pottery, and so I had a chance to see many curious objects. Figure 571 represents an old Korean cup, six inches in diameter, the design inside so odd that I sketched it. I have never seen the peculiar rake or bench in Japan. I was given for the University Museum a curious oviform jar, fourteen inches high, with a fillet of clay around the biggest diameter; it was of coarse, red clay, thick and heavy, and unlike any of the pottery found farther north.

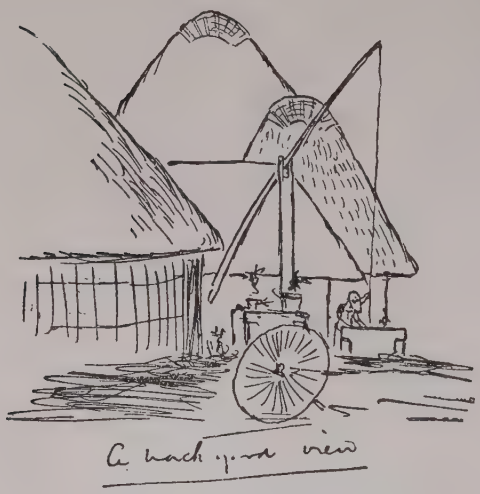


Fig. 569

After a charming time over the old Korean and Japanese pottery we started off again along the shore, as the tide was out, and I had the delight of seeing alive for the first time a number of tropical species of shells, *Cypræa*, *Conus*, *Murex*, and an exquisite little *Bulla*. During the day the breeze died out, and we were delayed for hours. The Governor had in-

vited me to dinner at six o'clock, but it was nine o'clock before we got back to the landing-place, and had it not been for a spanking breeze which came up it might have been midnight. I jumped from the boat and ran to the inn for dry stockings and a clean shirt, and hurried to the Governor's house with the officer who had accompanied us, and my assistant. We were shown into a beautiful room, large and spacious. I was in my stocking feet, of course. As I walked into the room the Governor came forward and greeted me cordially, and I did not detect the slightest impatience in his manner at my lateness, though it was nearly ten o'clock. He had a wonderful collection of chrysanthemums in his garden, and these were illuminated by hundreds of lanterns. He then showed me a number of old Satsuma and other pieces and expressed his amazement several times that a foreigner, whose inter-

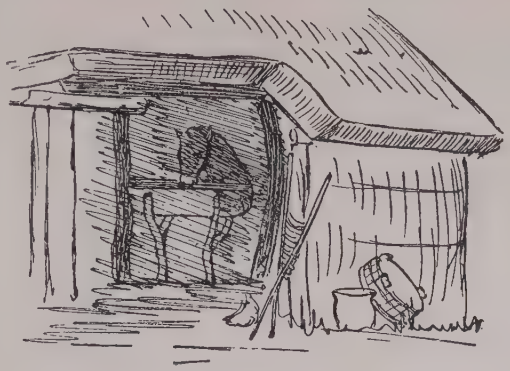


Fig. 570

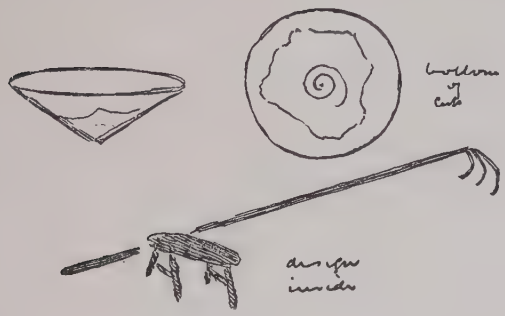


Fig. 571

ests were supposed to be in other directions, had learned to distinguish so quickly the Chinese, Korean, and Japanese pottery. At ten o'clock we were invited upstairs to dinner. There were six in all, and the dinner was in foreign style in compliment to me, though, as I had got used to Japanese food, I should have enjoyed it more if it had been Japanese; as it was, I showed my appreciation by eating heartily. The only mouthful I had had since four o'clock in the morning was two sweet potatoes with a little coarse and dirty salt.

Fig. 572

One of the gentlemen was full of fun, and before we were half through dinner began to play some odd tricks with his hands. I managed to do all of the things that he did except bend my fingers back to my arms. I then showed them the trick of making the hands go round in opposite directions, and finally the right hand going faster than the left hand. It was laughable to see the desperate attempts they all made to accomplish the trick, and not one was able to do it.

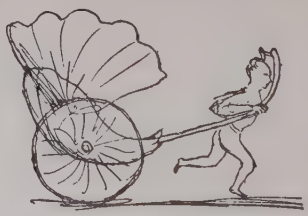


Fig. 573

I then asked permission to borrow a sword for a moment. This was brought to me wrapped in silk. Knowing the dignity and ceremony involved in unsheathing the sword I apologized, turned slightly away, and drew the sword with the cutting edge toward me. The trick consisted in grasping the handle with one hand and the scabbard near

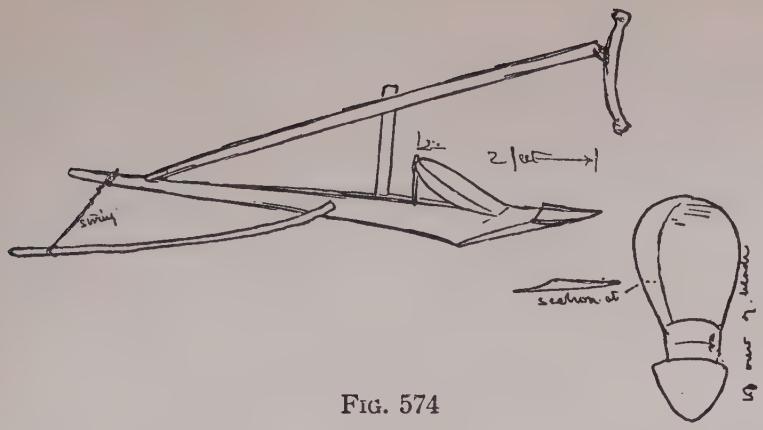


Fig. 574

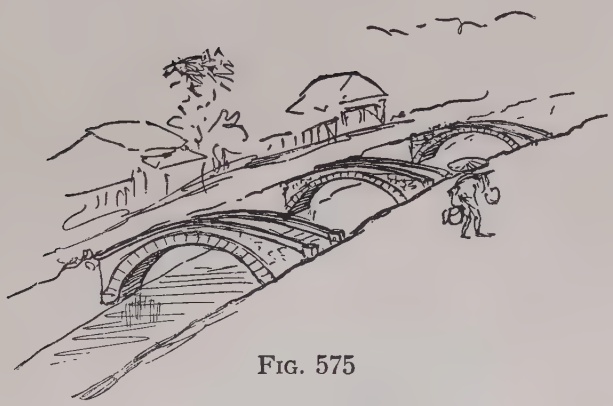


Fig. 575

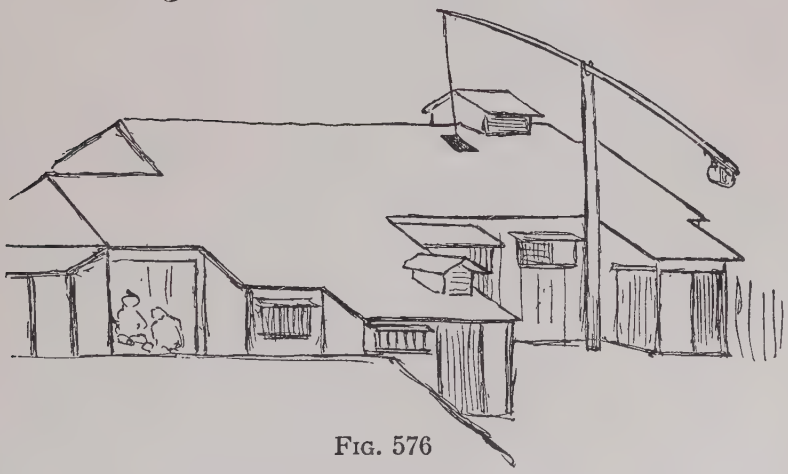


Fig. 576

the handle with the other, the backs of the hands down, and then withdrawing the blade, turning both hands completely over, and sheathing the sword to the hilt. Not one could get the sword parallel to the sheath; it was generally at right angles.

Fig. 577

I showed them a number of tricks on the floor that I had learned as a boy in a country academy, and what with the saké and the games we had a delightful time. The Governor gave me the Satsuma bottle he drank from. It was made especially for him many years before, but he said it did not hold enough. Figure 572 is a sketch of it with the deep, box-like tray that accompanies it. It will be observed that the deep wooden tray has openings on opposite sides through which to draw the cloth in cleaning it.

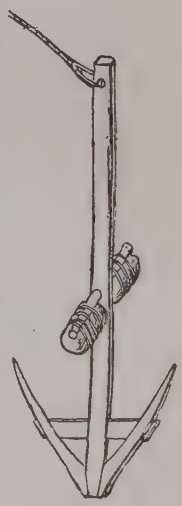


Fig. 578

At two o'clock in the morning we had to say good-bye and all expressed the pleasure they had enjoyed. We hurried to the tea-house in the dark, packed up the results of our day's collecting, and started for the steamer just as day was dawning. We heard the anchor being weighed and clambered aboard with the steamer just starting. I had been on my feet for twenty-four hours, had dredged, had walked eight miles in a broiling sun with almost nothing to eat, and now found myself so tired out that I dropped on the hard deck and fell sound asleep.

I learned in some way that my mail from America, which

I had missed at Nagasaki, had been forwarded overland to Kagoshima, but it was impossible to wait for it, as the steamer had to sail on schedule time, and so I was missing it again. Orders, however, had been left at the Post-Office to return it to Nagasaki, where I was to be for a week or more.

FIG. 579

Before entering another region of Japan there are a few observations to record. Every place seemed to have its peculiar type of jinrikisha, and Kagoshima is no exception. Here the shafts are bent in a curve over the head of the man so that the transverse piece is over the man's head, and one wonders why it does not bump him. The sketch (fig. 573) gives a faint idea of this jinrikisha. The back and sides are gaudily painted and lacquered and pictures of dragons and other mythological subjects and heroes also embellish the back of the vehicle. A peculiar type of plough is used in the

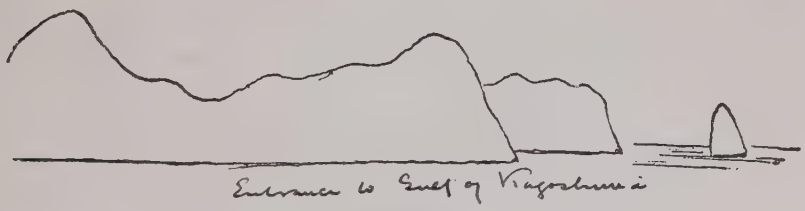


FIG. 580

grain-fields of Satsuma and Higo (fig. 574). The iron shoe and shearing piece seem light and feeble, but the plough encounters no boulders in the ground. It is drawn by a single horse, and though primitive in construction seems to do its work well.

The country abounds in stone-arched bridges, many of them old, some of them of considerable size, and all picturesque. It seems curious to see so many arched bridges and not one of the arches having a keystone, such an important element in a bridge as we consider it, yet the Japanese have never seen the necessity of it. To us their arch looks imperfect and insecure. However, I have never seen one showing weakness and there is no reason why it should. It forms a pretty feature in the landscape — rivers and even little brooks spanned by stone arches, lichen-covered with age. A little narrow creek in Kagoshima was spanned in one place by three stone-arched bridges connecting with as many little footpaths (fig. 575).

Fig. 581

Not only are well-sweeps of the old New England type seen in Satsuma, but in some cases the well is inside the house and the well-sweep stands outside, as in figure 576, which represents a bathhouse in Kagoshima.

Fig. 582

It is interesting to see how promptly the Japanese turn to bamboo for little devices. For instance, the other day, while dredging, I found that a pair of long iron forceps had been left behind, but my boy immediately took down a slender bamboo flagstaff from the boat, cut off one joint, and soon made a fine long pair of forceps which I found not only very serviceable, but light to handle (fig. 577).

There are several types of anchors. An iron form with four

recurved hooks is shown in one of the sketches of junks. Figure 578 shows another type. It is made of wood, and the weight consists of two pieces of stone lashed to a transverse piece.

In Higo and Satsuma, and probably in other portions of Kyushu, they use pottery beads, or cylinders, two inches long, on the breeching-band of the harness, this device permitting the rope to rub up and down without friction. These are strung alternately on the rope which goes over the flank of the horse and are glazed yellow and green (fig. 579). In Yezo round wooden beads are used in the same way.

A few sketches of headlands are given: in figure 580 the entrance to the Bay of Kagoshima; figure 581, off the Higo coast, with stratified rocks dipping to the south; and figure 582, rocks on the west coast of Satsuma, known as "fifty-foot rocks," as they are said to be fifty feet in height. The stratified rock I had not seen so well defined before.

CHAPTER XVII

TRAVELS IN THE SOUTH

THE sail from Kagoshima to Shimabara Gulf was delightful. The sea was as smooth as a millpond, with not the slightest swéll even, and I was able to write a good deal in my journal. The next morning the vessel anchored off the mouth of Takahashi River; not nearer than five miles, however. In the mean time a strong breeze had sprung up and a heavy sea was smashing against the side of the vessel. I knew how safe the little Japanese sampan was, for I had dredged from them many times, yet I felt somewhat anxious as I saw the boat dancing up and down by the side of the steamer. We had great difficulty in getting our luggage aboard, and then had to make a flying leap from the steamer's steps which had been lowered for us. However, we landed safely, and having ascertained all about the position where *Lingula* might be dug I left my boy and Tomi, as we call him, to give their whole attention to collecting all the *Lingula* they could find and all the seaweeds, and I pushed on with my assistant to Kumamoto, nearly four miles inland.

We called on the Governor at the castle, a fine-looking old gentleman who had provided for us a good Japanese dinner, which we greatly enjoyed. The Governor showed us about the castle and told us about the siege two years before, when for six weeks the castle was besieged, many of the buildings

burned down, many citizens and soldiers killed, and the city of Kumamoto laid in ashes. The Governor was in his castle and the rebels made special efforts to destroy the building in which he was supposed to be. The buildings were battered and in many places were the marks of bullet holes. It was interesting to see the animation of the old man as he described his experience.

And here, before I forget it, I must record the fact that nearly ninety-nine out of a hundred intelligent people I have met in our country confound the phases of the moon with eclipses. The captain of our steamer, an Englishman, had no conception of the matter till I explained it to him, and in the discussion I found that he knew nothing about the laws of gravitation and had an idea that we were held to the earth by the pressure of the atmosphere! I cannot spend the time recounting our discussion, but here was an English captain navigating a steamer, and knowing thoroughly the coast with its hidden rocks and sandbars, yet utterly ignorant of the simplest facts in astronomy. He asked me, though in an abashed way, if Darwin lived in the days of Aristotle (for he seemed to know that name and that he lived centuries ago), or was of the present time!

To return now to the Governor I told him the objects of our work, and he offered to send an officer to accompany us, as I intended going to Yatsushiro, thirty-four miles south. By this time it was late in the afternoon and we were very tired, yet we took a long walk around the outskirts of the city. Here, as at Kagoshima, and at other places, the absorbed

way in which every one looked at me showed how rare was the sight of a foreigner.

That evening the officer sent by the Governor came to our inn and a delightful gentleman he proved to be. Such profound bows as he made, and I could not help laughing at myself to find how natural it seemed to me to be kneeling on the floor and bowing again and again till my head repeatedly touched the mat, and I had even acquired the curious sipping sound in drawing the air into my mouth.

The next morning we were off at five o'clock, and after a long, tiresome jinrikisha ride of twenty-four miles over the roughest of roads came to Onomura, where I found the shell heaps I had been looking for. The road passes through them and they are at least five miles from the sea. The deposits may prove to be equal in depth to the shell heaps of Florida, at least thirty feet. The solid mass of shells consisted of *Arca granosa*, though many other species of shells were found.

We examined and dug until nearly dark, and then pushed on to Yatsushiro, arriving there at nine o'clock at night, when we reported to the Governor of the Ken and met a most courteous gentleman; every movement, every action was that of grace and refinement. In the Shogunate his rank was very high, but with all his charm of manner there was not the slightest trace of affectation. He ordered a merchant to find accommodations for us, and this my assistant informed me was customary when they wished to do special honor to a visitor; instead of letting him go to a public house they open a private house for him. What unfathomable lies my assistant told him about me I did not learn, but in my somewhat

fatigued condition the hospitality was indeed gratefully received. The house where we spent the night was large and ample; the rooms were much higher-studded than in the usual house, and spacious. The space between the sliding partitions and the ceiling had a remarkable carving representing long gutters of wood conveying water, for irrigation probably; the grasses, supports for the gutters, and other details were beautifully made.[1]

The next morning the Governor brought to me as a present four Koda teacups which he said had been made by the order of his father thirty-five years before. Figure 583 is a sketch of one of them. I was delighted to possess them, as I have developed a passion for Japanese pottery, old and new. He told me he had a large collection of tea-jars, and that he would bring them to Kumamoto for me to examine. He expressed a desire to examine the Onomura shell heaps with us.

FIG. 583

We started for Onomura in a driving rain; we were soon wet through and were in that condition all day. We made as thorough an examination as possible of the shell heaps in the limited time we had. We got many bones, among them fragments of human bones as in the Omori deposit showing evidences of cannibalism. One human tibia was unusually flattened, an index of 50.2, one of the lowest ever recorded. Some extraordinary forms of pottery were found; one shallow bowl with unique arrow design (fig. 584).

Professor Lyman, the geologist, who first told me about

[1] The sketch of this *ramma* has been reproduced in *Japanese Homes*, fig. 149.

the Onomura shell heaps, also described a curious stone coffin near the shell heaps. We easily found it. It was a huge stone sarcophagus. The end of the cover had been broken and was face down, and it was hard to get the villagers to assist us in turning it over on account of superstitions connected with burial. Our jinrikisha man, however, had no scruples, and by digging around the stone with a beam for a lever we got it turned. Figure 585 is a rough sketch of its appearance; the inside was cut in panels. It is believed to date back a thousand or twelve hundred years. The Governor of Yatsushiro knew nothing about it, and regarded it with the greatest interest.

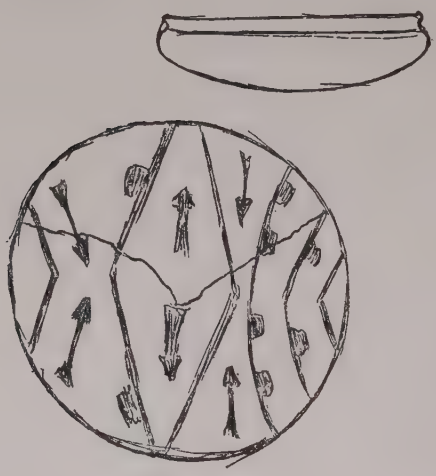


Fig. 584

The rain continued all day and we were wet and muddy. At noon we stopped to take a hasty lunch. The jinrikisha men had brought their lunch with them: cold rice, a pickled plum, and possibly a little raw fish with the customary shoyu. We found a fisherman's hut, a rather poverty-stricken place, and humbly asked for rice, and the fisherman and his wife politely, and without a sign of being flustered, set about the task of getting us something to eat — a dark-colored rice and some small dried fish as hard as a bone. There was no servile apology for the meagreness of the fare, though they

realized the august presence of the Governor, and had never before had an "outside barbarian" beneath their roof; yet with simple dignity they did what hospitality required. The manners of the Governor were simply exquisite; he ate the poor food with an apparent relish and returned bow for bow. I cannot find words to describe the way he charmed those

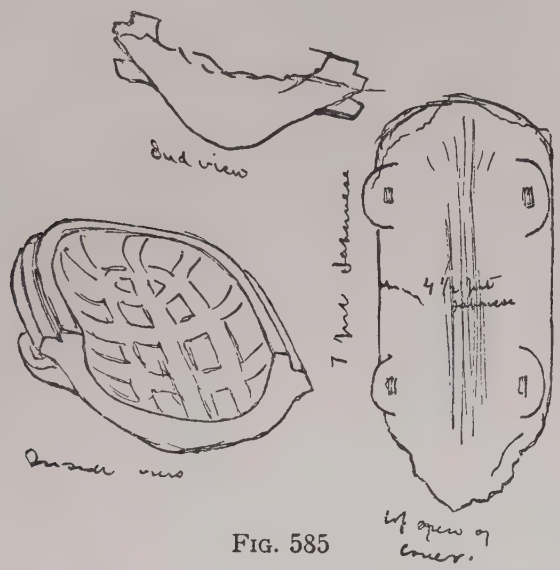


FIG. 585

poor people by his apparent enjoyment of the simple food. Had he been entertained by the Emperor with a sumptuous feast he could not have shown his appreciation and gratitude more strongly.

While we were eating, some villagers looked in to wonder and admire. One of the men told us there was a cave in the side of the hill in which were a few pottery vessels. Knowing the peculiar form of cave pottery farther north and that the caves were burial-places, and that the vessels were placed

there for offerings of rice, wine, etc., I asked for a brush and paper and ventured to draw the outlines of the vessels which were in the cave. The Governor showed the drawings to the men, and asked them if they were correct. With curious embarrassment they told us they had never seen the pottery, nor had their fathers, but their grandfathers had handed down the story that when a narrow road had been built on the side of the hill the workmen had broken through the roof of the cave and had seen the vessels.

After lunch we had the men guide us to the place. Though it was raining in torrents we waded through the mud up a steep incline for nearly half a mile, when we came to a place where they stopped and pointed over the precipitous side of the road where ten feet below was an opening out of which the muddy water was pouring like a sluice, and that was the entrance! Only a muskrat or a beaver could stem a current like that. In looking around for the source of the water I found that a flooded gutter beside the road was losing much of its water at the place where we were standing. The Governor got permission to dig up the gutter at this point, and we came to a number of logs which covered the hole in the roof of the cave. Farther up the road the gutter was dammed in such a way as to divert the stream over the steep embankment. The hole was certainly not over two feet in diameter.

A dozen or more villagers had collected, and generous payment was offered to any one who would allow himself to be lowered into the cave, but superstitious fear at entering a sepulchral vault was so great that not one of them was willing to go down. Our jinrikisha men from Yatsushiro shook their

heads also, and as my assistant did not volunteer there was nothing to do but go myself. The Governor endeavored to restrain me, saying that mines had been dug there; but if so I knew the water must be on a level with the stream outside. I got two jinrikisha men to grab my hands and lower me. It was as dark as a pocket, and the little light from a rainy sky was cut off by the curious and awe-stricken crowd that shaded the hole. I stretched out my legs in vain to find something to touch, and finally jerked my hands from the grasp of the men and dropped into the water nearly up to my middle. There was a momentary silence and then shouts of horror came echoing down from the opening. I called back to my assistant that I was all right, when in agitated tones he told me that great poisonous centipedes were crawling out of the opening! I had on my wide-brimmed hat and a slippery rubber coat, and what I had supposed to be crumbs of earth and pebbles tumbling from the sides of the ragged hole were huge centipedes dropping on me! I stood literally in a cascade of the venomous creatures. They were scampering around the walls of the cave and dropping off from the ceiling as frightened spiders will. As I got accustomed to the dim light I saw them by hundreds floating in the water, and after waiting till the current had drained them off I groped around in the sand for the pottery. The sand and mud had been accumulating and a deposit two feet or more in depth covered the whole floor. It was a hideous experience, but my slippery raincoat and broad-brimmed hat saved me, for the creatures could not retain a hold and tumbled into the water as fast as they struck me. Had I not been so

excited over the pottery, my loathsome position in this dark and noisome cave, crouching in a cascade of centipedes, would have horrified me. I got three specimens of the creatures for the Museum, made a sketch of the wall of the cave toward the opening, and then had a rope lowered to me and was pulled up. The ground around the hole outside was marked with the mangled remains of many centipedes that had been crushed as they crawled out.

With the water dammed above and drained away from the cave, I finally induced two jinrikisha men to go down, and with hoes they carefully scratched away the sand, and after an hour's hard digging discovered four specimens of pottery, one perfect, another slightly broken, and large fragments of two others. The Governor drew out the sketch, and I heard him speak to the natives in wonder that I, a foreigner, who had come ten thousand *li* across the seas, should describe precisely the shape of the vessels to be found, which they had never seen. The natives looked at me as a foreign devil, indeed, and showed much discontent when I took the pottery away. The Governor explained that it was to be placed in the Museum of the University. Figure 586 shows the appearance of the cave looking toward the entrance. The centre arch shows the opening into the cave; from the outside, where the opening is small, the entrance enlarges to the cave and the alleyway is curved as well; on each side within were two blind arches.

At five o'clock in the afternoon we started for a twenty-four mile ride to Kumamoto, and a more dismal and wearisome ride I never had — raining all the time and the roads in

frightful condition. I was tired out, and so cold that I shivered, so sleepy that it was a struggle to keep awake; and yet if I dozed for a moment my head would be nearly wrenched off by the jolts of the jinrikisha. I had left Mr. Tanada behind to pack the pottery and other specimens we had got at the shell heaps, and my only companion was the Governor, who did not understand a word of English, and my Tokyo-

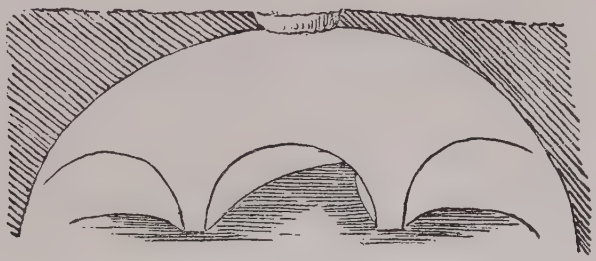


Fig. 586

Japanese — almost a dialect — was nearly unintelligible to him. At eight o'clock we hired extra jinrikisha men, and they sang the entire way, each one in turn giving a grunt or a note uttered at every step. The novelty of jinrikisha men singing kept me awake for a while, but even this attraction wore away, and when I got to Kumamoto I was more dead than alive. The Governor of Kumamoto had ordered a private house for our abode, but I was too cold and even sick to appreciate the accommodation, and having taken off my shoes, crept into the house and lay down on the floor in my wet clothes and slept like a log.

The next morning I called on the Governor of Kumamoto to thank him for his courtesies and to tell him of the discoveries we had made and of the curious cave at Onomura. He

then told me that in the castle rocks were some caves. He smiled at my impatience to see them, but amiably got up and guided me to them. My limited time permitted only the briefest examination of them. The openings appeared on the side of the cliff; foliage hung down so as to obscure many of them, and some were difficult to reach. I entered a few of the caves, which were square in shape. In one there was a transverse partition and in others there were recessed portions in the farther end about four feet up from the floor, making a ledge on which probably offerings of food were placed. An interesting field of study would be an examination of the caves of Japan; they are found widespread throughout the Empire, and, so far as I know, are mortuary caves.

In the afternoon I returned to Takahashi and found that the boys had done wonders in collecting. I feasted my eyes on tubfuls of the big green *Lingula*, and ate a few of them as the natives do. The peduncle only is eaten and I found them rather tasteless.

After reaching the little fishing village at the mouth of the Takahashi River, I learned with disgust that the steamer would not sail until the next day on account of the threatening storm and I therefore spent the rest of the day studying *Lingula*. On the mud flats were a number of creatures hopping about which I first mistook for small toads or frogs. Catching one with difficulty I found they were little fish with an extraordinary development of the pectoral fin. These little animals gamboled about as if playing with one another. It was not difficult to see how Lamarck got his ideas of the result of effort in modifying parts, etc.

The kites at Takahashi were of enormous proportions — eight or ten feet square with a stout rope for a string. One kite had the same flashing eyes already mentioned.

On our way from Onomura yesterday we passed a fine old tree beyond which was a shrine. It is interesting that everywhere in Japan, where there is a picturesque view or some natural object of interest, a shrine is erected. Figure 587 is an illustration of this custom. The tree being quaint and of interest the shrine is erected back of it. Here they utilize nature to call attention to their religious duties; in our country beautiful scenery is either hidden by huge signs for liver troubles, or the landscape is ruined by other vulgar advertisements. At Takahashi is a camphor tree, magnificent in form and size and greatly treasured by the people; its trunk ten feet from the ground is eight feet in diameter (fig. 588).

Fig. 587

Looking west from Takahashi across the Shimabara Gulf is seen a noble mountain mass known as Onsendake. The tops of these volcanic mountains are obscured by clouds most of the time, but now and then glimpses can be had and the outlines shown in figure 589 are fairly correct. The steamer that carried us to Nagasaki made a hasty trip to the island and town of Shimabara, reaching there at five in the afternoon.

It is one of the most picturesque places in Japan. You sail in and out among little rugged islands and finally reach the town, at the water's edge, and just back of the town rise the rocky slopes of Onsendake. We rode through the town a mile and a

FIG. 588

half to a famous inn and ordered a fine dinner consisting of a large gasteropod, *Rapana bezoar*, served in its beautiful shell, boiled cuttlefish, fried eel, and rice,—all delicious. On our way back to the boat, which was to stop only two hours, we hunted for shells, the natives eyeing us with reluctant and unfriendly gaze. Here is where the people opposed to the last the landing

of foreigners, and every look and action betrayed their aversion to the barbarian.

I managed to get one little hasty sketch of a stone bridge. Everywhere one sees stone bridges, many of them constructed

Fig. 589

precisely like a wooden one, but its beams, supports, and rails are hewn out of stone, as shown in figure 590.

At seven in the evening we started for Nagasaki and such beautiful little islands as we passed! It seemed like going home after the somewhat fatiguing dash we had made in Satsuma and Higo. Our steamer was the smallest one I have yet traveled in. It was so small and cranky that when I walked to one side it would tip in that direction. No wonder the captain waited for a few days on account of the stormy weather.

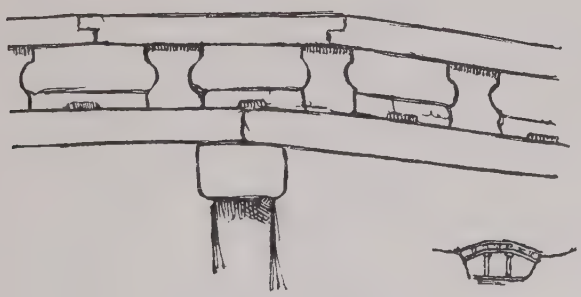


Fig. 590

The next morning we reached Nagasaki, where I was again to find European food, a chair to sit in, and a table with a kerosene lamp at which to write. Living in Japan, I notice the absence of a table more than I do the food, to which I am gradually becoming accustomed. To go without coffee, milk, and bread-and-butter is indeed a deprivation; but it is awkward and painful to sit on the floor to write and draw, and when one is tired it is almost impossible. At Nagasaki I remained

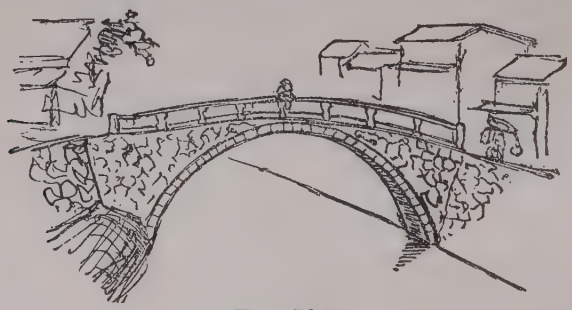


Fig. 591

several days studying the living *Lingula* I had brought from Higo and also a minute *Descina* which I had dredged in the harbor. Mr. Mangum, the American consul, and his wife were very kind to me. They gave me the use of a fine room in their house for my microscope, and furthermore insisted that I should come to dinner every day while in Nagasaki. As the hotel was poor, it was enjoyable to get one good meal a day.

A river runs through the town spanned by a number of stone-arched bridges, some of them very old. Figure 591 shows the type of these bridges. A form of kite which the boys fly from the bridges is shown in figure 592; it is unlike the northern kite and the two circles are entirely black. There are

other forms and designs, but the form figured seems the most common.

Many of the measures — wet as well as dry — are made in the form of a square instead of round. In the dry measures for grain a piece extends from one corner diagonally to the other corner flush with the edge of the measure (fig. 593). Figure 594 shows the saké measures with convenient handles and a tub of saké near by.

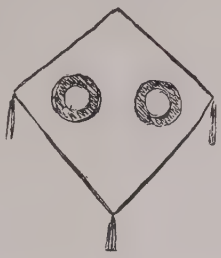


Fig. 592

Nagasaki is famous for its tortoise-shell work. It was interesting to visit the place where they made objects of tortoise shell. The workmen in every trade sit on the ground, and in this place they sat cross-legged, like Turks, and not in the usual way already described (fig. 595). It seemed wonderful that they could apparently mould and melt together the thin plates of tortoise shell. They use ponderous iron pincers which they heat in a furnace (fig. 596), and squeeze the sheets of tortoise shell together or make curved or other forms.

On our way back from Nagasaki to Kobe we again passed through Shimonoseki Straits, and came to anchor off the village of Shimonoseki consisting of a long stretch of low buildings. I was told that the people were very unfriendly to foreigners, and no wonder when one recalls the cruel bombardment years ago by the warships of four Christian nations. We desired to land, but were told by the Japanese purser that foreigners rarely landed at the village. Relying on the uniform courtesy of the Japanese, I was

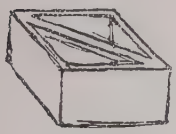


Fig. 593

bound to land, though my passport did not cover the place or even the province. I told the purser that it was important to get a glance of the shore at low tide in the interests of the University. He then permitted me to go ashore in his boat. A glance at the shore was made, and then I walked through the main streets of the town and peered into every shop. I could readily see that a foreigner was *persona non grata.* I was not treated rudely, but was simply ignored. The children ran from me as if I were the Devil, and one sweet little boy, whom I could not resist patting, held his breath as if it required the greatest courage to endure the caresses of the hated foreigner.

Fig. 594

At Kobe we stopped for dredging for a few days and I made various excursions into the country. At the hotel I met the surgeon of the British gunboat, who had brought to me at Nagasaki a big package of mail. We dined together, and he told me some particulars regarding the incident of my mail. He said that when the gunboat left Nagasaki for Kagoshima Gulf, the commander left word to have mail forwarded to Kagoshima. When they reached Kagoshima, they heard that a large bundle of mail had arrived and had been sent back to Nagasaki overland. They concluded, naturally, that the mail was for them, as they knew of no foreigners within two hundred miles of the place. They had had no letters from home for a long time and were all hungry for their mail. On their

way back from Kagoshima, they put in at one place to intercept the mail, but it had gone by. The next day, farther up the coast, while the commander and officers were in the cabin, a

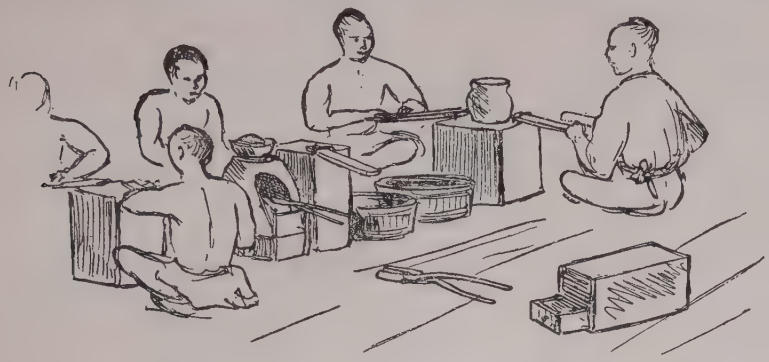


Fig. 595

bundle of mail was sent aboard and they all gathered about the table in great glee and tore open the bundle; the surgeon told me that I would not have been edified if I had heard the comments upon my name as the commander read over the addresses. It ranged all the way from damning me, to inquiries as to who in h—l I was. Every piece of mail to the last scrap was for me!

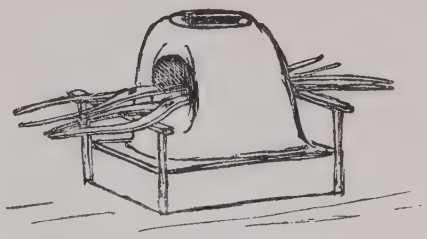


Fig. 596

While in Osaka we were told that there were certain ancient mounds in the villages of Hattorigawa, and Korigawa, about twelve miles from Osaka. Our ride carried us across a large plain under complete cultivation. As far as the eye could reach were innumerable well-sweeps after the typical New Eng-

land style, which were used in bringing up water from shallow wells for irrigating purposes. The mounds were typical dolmens such as have been described in Brittany and Scandinavia: a huge mound of earth covered a long, narrow entrance-way leading to a square chamber, ten or twelve feet across. We examined them with great interest, and wondered how these people, twelve hundred years or more ago, could have raised the immense blocks of stone that form the roofs of these chambers.[1]

A hasty trip from Kyoto to Nara was through delightful woods and charming scenery. It is beyond me to add any words to the many descriptions of the charms of Nara. Certain memories of the place will last forever: the quiet roads, the deep shadows, the deer from the forests tranquilly walking through the village street, with the inhabitants, young and old, equally inoffensive. Ruskin has somewhere said that he hoped the time would come when man would make as much effort to make wild animals tame as he now does to make tame animals wild; and it is a fact that wild birds and mammals in Japan are in many instances tamer than are our domestic birds and mammals at home. Nara is the ancient capital of Japan, and a spirit of a hallowed antiquity broods over the place. One may spend weeks in a study of the grand old temples. A marvelous old wooden storehouse perched on high posts was built a thousand years ago to preserve the objects belonging to an emperor of that time. It is certainly one of the marvels of Japan. In this building are preserved the

[1] These structures were described and figured by me in an article, entitled "Dolmens in Japan," in the *Popular Science Monthly*, March, 1880, p. 593.

household objects and utensils actually owned by the emperor, from the simplest hairpin to the finest musical instrument, some inlaid with gold; objects of the kitchen, decorative pieces, pictures, books, pottery, furniture, clothing, weapons, walking-canes, ink-stones and sticks of ink, fans; indeed, the entire contents of the palace. To appreciate the marvelous character of the collection one must imagine a similar storehouse in England which should contain the household objects belonging to King Alfred. Once a year Government officials open the single entrance and examine all the objects to see that none have been injured by dampness or other influences. I was fortunate in being in Nara during this annual examination, and knowing one of the officials was permitted to enter the building with them and allowed to make sketches of the old pottery. It was interesting to watch the reverent behavior of the grave officials. All wore white cloth gloves and all spoke in a low tone.[1]

The jinrikisha ride from Nara to Kyoto was most delightful. The road led through dark forests and out again into charming, open scenery, and the purest of Japanese life was seen. There is no better way of absorbing the beauties of the country than in jinrikisha riding. To ride in one is like sitting back in an easy-chair, and the speed is just fast enough to fan you and yet sufficiently rapid to make you realize that progress is being made toward your destination. At one place we crossed a river ford, not by going down a deep and sandy embankment, but by climbing up a gentle incline to ford the river

[1] Within a few years the Japanese Government has published an account of these treasures with beautiful illustrations of many of the objects.

far above the general level of the plains, the river literally running on a ridge! For centuries it has been confined to its channels, not by digging out the detritus swept down from the mountains, but by piling up embankments on the sides, with the result that the river-bed is conspicuously above the surrounding country, resembling a railroad embankment. On both sides of the road, as one enters the ford, are stone posts

Fig. 597

with deep vertical grooves, and at times of freshets planks are fitted into these grooves to keep the water from washing away the road.

Kyoto was approached through interesting surroundings, a proper frame for a city of art and refinement, prominent because of its varied points of interest. The cleanliness, the sobriety, and the artistic atmosphere impress you. A visit to the pottery districts — for there are a number: Kiyomizu, Gojiosaka, Awata — was most interesting. Instead of finding a

rough neighborhood and coarse surroundings and acres disfigured by broken pottery, it was like visiting some of the famous studios near Paris. The children in the region, prettily dressed, bowed politely to us as we walked along. The entrance of the potteries was reserved and modest (fig. 597), and within we were greeted by the head of the family, and tea

Fig. 598

and cake were immediately offered us. It seems that the members of the family alone are engaged in the work, from the little boy or girl to the old grandfather, whose feeble strength is utilized in some simple process of the work. The output is small except in those potteries given up to making stuff for the foreign trade (fig. 598), known to the Japanese as *Yokohama muke*, meaning "Yokohama direction"; that is, for export, a

contemptuous expression. In these cases many outsiders are employed, boys ten years old splashing on the decorations of flowers, butterflies, and the like, motives derived from their mythology, but in sickening profusion, so contrary to the ex-

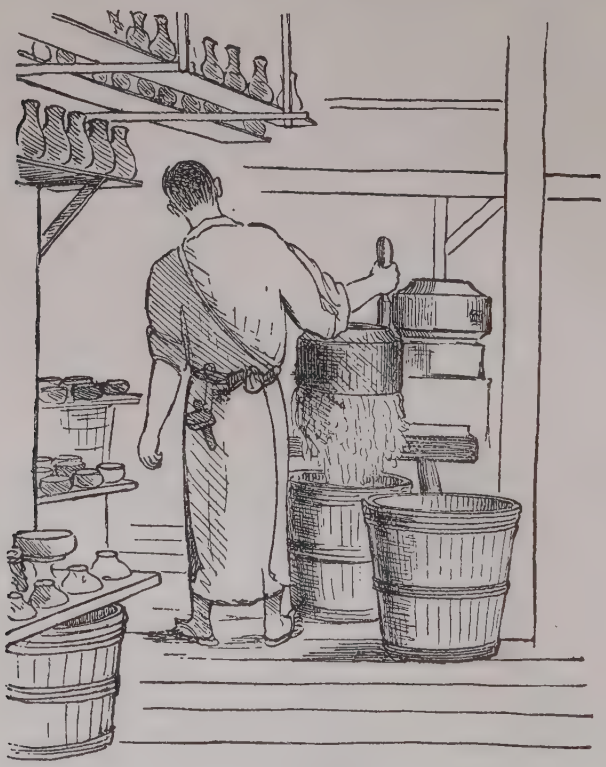


Fig. 599

quisite reserve of the Japanese in the decoration of objects for their own use. Previous to the demands of the foreigner, the members of the immediate family were leisurely engaged in producing pottery refined in form and decoration. Now the whole compound is given up to a feverish activity of work,

with Tom, Dick, and Harry and their children slapping it out by the gross. An order is given by the foreign agent for a hundred thousand cups and saucers. "Put on all the red and gold you can" is the order, as told to me by one agent, and the haste and roughness of the work, which is exported to America and Europe, confirms the Japanese that they are dealing with people whose tastes are barbaric.[1] And yet these Japanese products are regarded as attractive in our country.

Fig. 600

As before remarked, one sees but few potters at work, and every member of the family is utilized, from the young child, who carries the pieces from the thrower to the shelves for drying, to the old man, who may be blind, yet able to grind the clay (fig. 599), or to knead clay with his feet (fig. 600). I had to ask a good many questions regarding the work and history of the Kyoto potteries, and was told that in order to get

[1] A year afterward I noticed a parallel case in this country. At Minneapolis I was invited to inspect a large department store. On one of its floors was a vast array of tables crowded with objects made of hard rubber: combs, bracelets, breastpins, cheap jewelry of such atrocious vulgarity that I was forced to inquire as to the people who bought such stuff, as I had never seen such shocking things worn by the poorest creature. The answer was that they were made for the Northwest trade — probably mongrels and half-breeds, as no true savage would endure them. But where were they made? I inquired. In Attleboro, thirty miles from Boston!

these interviews a little money present in advance would facilitate matters. It seemed odd enough and rather mercenary to send in advance a dollar or more to secure the desired information, and yet what right has one to intrude on a busy man without offering some compensation for the

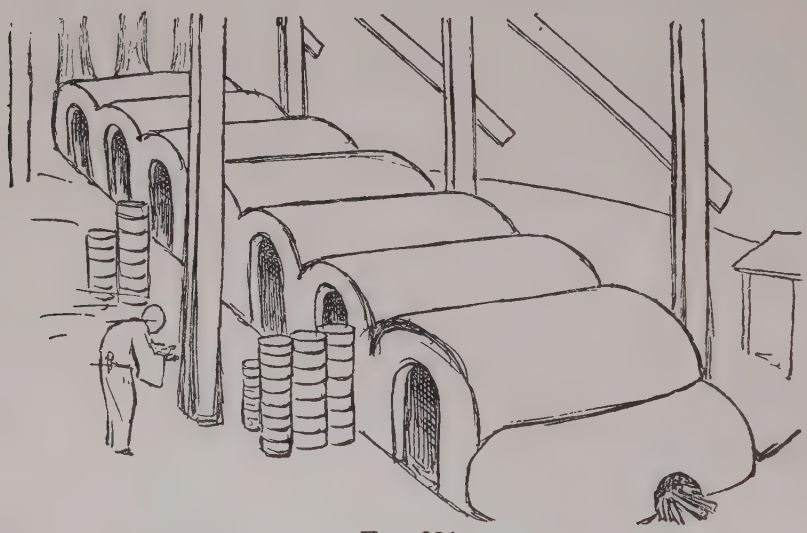


Fig. 601

time demanded? I realized, furthermore, that in our country men, even millionaires, were too busy to attend directors' meetings unless a ten or a twenty dollar bait were held out as a proper compensation. The results of all these interviews, which inquired into the history and origin of the potters, the number of generations, impressions of the various stamps used by the different families and generations, were got by patient and laborious inquiries through an interpreter.

I made many hasty sketches of the ovens, which are built

after Chinese models.[1] The ovens are built on a hillside, each oven eight to ten feet in length, six feet high, and three feet in width, and they are placed side by side, one behind the other. Figure 601 will illustrate the arrangement. They are one compact mass of brick and mortar. The ovens open at the end and communicate with each other by openings.

Fig. 602. Ovens of Rokubei

Fire is kindled in the lowest oven and the heat from this passes through each oven in turn till it issues through rude chimneys in the upper one. By this device all the heat is utilized as the current of heat rises to the last oven. After the first oven has been heated sufficiently, fuel in the shape of long slender sticks is thrust into the second oven through a little hole in the bottom, and then into the third, and so on, till all have been sufficiently heated and the pottery com-

[1] These were not so strongly and compactly constructed as those I afterwards saw some forty or fifty miles back of Canton.

pletely fired. This is ascertained by test objects which may be observed through an opening in the upper end of each oven.

Every Sunday Ninagawa has come to my house to identify the pottery I have collected during the week. One day I actually abducted him, carrying him in my jinrikisha, against his protestations, to a photographer, and had his picture made, the first and only one he ever had. Ninagawa was a Kyoto man, and his sister still lived in the old homestead in Kyoto, which was over three hundred years old. He gave me a letter of introduction to her, and with a copy of his photograph I visited her, and her delight at the picture of Ninagawa enabled me to make a study of the house, inside and out.[1]

Most of my time in Kyoto was spent at the various potteries and from the more famous ones, Dohachi, Kichizaemon, Yeiraku, Rokubei, and Kitei, I made a large addition to my pottery studies, getting from them a history of the families of the past generations, impressions of their pottery signatures, etc.[2]

From Kyoto we went to Osaka again. Here a Japanese student, Mr. Ogawa, whose acquaintance I had made in Tokyo, desirous of entertaining me, and not realizing that I had become accustomed to Japanese food and enjoyed it, invited me to a Japanese restaurant to have what was supposed to be food cooked and served in foreign style. The Japanese make excellent cooks when properly taught. I had had experience in a Japanese foreign restaurant before, but of all abominable stuff the Osaka attempt was the climax.

[1] Sketches of the house and garden are given in *Japanese Homes*.

[2] This information is given in my *Catalogue of Japanese Pottery*, published by the Boston Museum of Fine Arts.

Fig. 603. A Potter making Flowers in Relief in a Recessed Panel on Vase

Fig. 604. An Artist decorating Pottery

Observe the kerosene oil lamp

Every dish was a travesty, and I wondered how the Japanese were impressed when, out of curiosity, they attempted our food.

Cholera was very prevalent, and one had to resist the temptation to eat of everything raw, such as grapes and other fruit, and green things of various kinds. Moreover, not a swallow of cold water could be drunk. Tea, tea, tea, morning, noon, and night, and on every possible occasion. Speaking of tea, however, it is one of the pleasant features of Japan that wherever you go, friend's house or shop, tea is offered you. No matter how poor and humble the place, this courtesy is never omitted. But we must realize that preparing tea as they do is a very simple act, and it is drunk without cream or sugar. Along the road are little resting-places at intervals where a tray with tea and a few rice cakes are offered you, for which it is customary to drop in the tray a coin the value of a cent. You give a public lecture, and instead of the customary pitcher of cold water and a glass, a tray with a teapot and cup is placed upon your desk. At the University one man's whole duty is to prepare tea for the teachers, and at intervals throughout the day he brings to your laboratory a teapot of hot tea. The tea is very mild, but always refreshing. For centuries the Japanese have realized the danger of drinking water in a country where the sewage is saved and utilized on the farms and rice-fields.

A very attractive feature seen in the paper shops are the envelopes and writing-paper. The envelopes are of comparatively recent origin, having been adopted from abroad. Formerly there was, as with us before the invention of the

FIG. 605. POTTER MAKING TOY HOUSES

The potter rolls the clay into thin sheets, cuts the sheets into desired shapes and unites them with wet clay

FIG. 606. POTTER APPLYING LIQUID GLAZE TO POTTERY

envelope, a definite and formal way of folding a letter. The writing-paper is in long rolls, six inches or more in width. The writing is in vertical lines and the lines begin at the right. The writing is done with a brush, the India ink being rubbed for the occasion. The roll forms the support upon which one writes, beginning at the free end. As line after line is written the paper is unrolled, and when the letter is finished the strip may be five or six feet in length. It is then torn off and loosely rolled up again, flattened by the fingers, and slipped into the end of the envelope, which is a little longer than the roll and two inches or more in width. The envelopes, and often the paper, are made attractive by pretty designs in color, the paper with the lightest suggestions of cherry blossoms, petals, pine needles, and even entire landscapes, all subdued in color so that the writing is not interfered with. The envelopes have more pronounced designs, generally around the margin so as not to interfere with the address. One is amazed at the infinite variety of designs. Many subjects are derived from foreign objects, some of them prosaic to the last degree, yet rendered attractive by these facile artists. Many of the designs are enigmatical unless one is familiar with the folklore or mythology of the Japanese. Others reveal their meaning at once, as a steaming teapot in the foreground, and in the distance a railroad train or a shaft of lightning and a telegraph pole, indications that the origin of the discoveries of steam and electricity is understood.

My colleague, Professor Mendenhall, has lately been interested in the speed of movements made by insects and snails. By carefully measuring the time made by a large

species of snail, he found that it covers a mile in fourteen days and eighteen minutes. He also estimated the speed of a common species of ant, and found that in ordinary walking the creature moved at the rate of one mile in one day and seven hours. These estimates are rough approximations.

The Japanese remember sacredly the anniversary of a parent's death and observe it with appropriate ceremonies. Even the anniversary of a grandparent's death is remembered and observed, fresh flowers and fruit offerings being placed before the gravestone. The Buddhists also have a stated festival for the dead. A curious form of lantern (fig. 607) is made for the occasion, and pictures over two hundred years old show the same form of lantern.

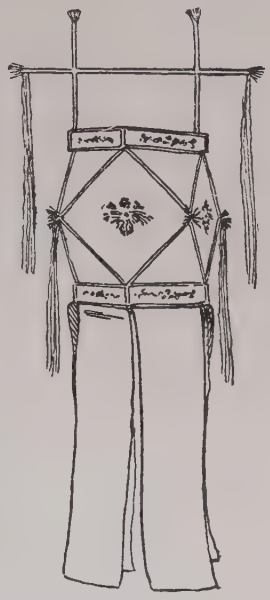


Fig. 607

A brief visit again to Osaka gave me an opportunity of visiting a few of the many places of interest. In this great city is one of the largest bronze bells in the world; and an ancient Buddhist temple containing a gilded Buddha, said to have been brought from Korea a thousand years ago, and many other features of interest. Alluring as all these places were I realized that they had already been described in guidebooks or special memoirs, and throughout the keeping of this journal I have endeavored to sketch and record only those trifling matters so often overlooked by the student and traveler.

No one should visit Osaka without inspecting the ruins of a famous castle built by Hideyoshi in 1583. These ruins stand on a high elevation, and in its time the castle must have been well-nigh impregnable. In its second siege in 1615 it was overthrown and burned, and the rounded edges of the huge blocks of stone of which the walls are built attest to the intense heat of the conflagration. I was permitted to roam about at pleas-

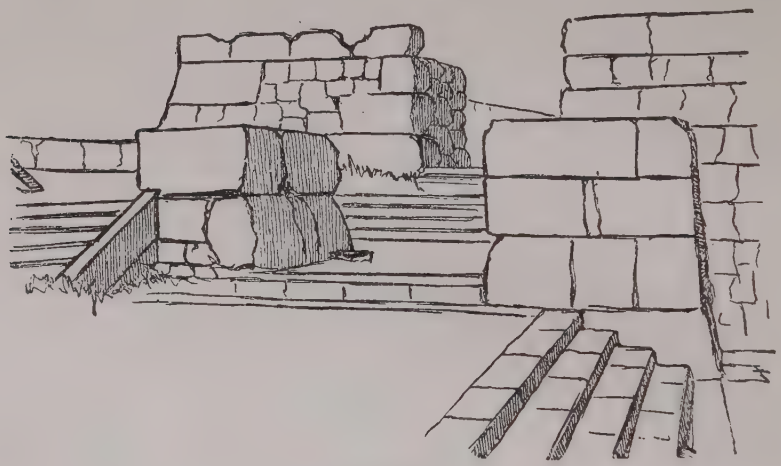


Fig. 608

ure, and no one objected to the sketches I freely made. Figure 608 represents the highest portion of the castle; figure 609, the outer wall. The large block in the centre is thirty-five feet in length and ten or more feet in thickness and height. The stones were brought from distances of fifty to a hundred miles in vessels, and the gigantic size of some of them baffles the imagination as to how they were quarried, and it is still more inexplicable as to how they were transported and dragged up to the high plateau on which the ruins stand.

These enormous stones were put in place without steam derricks, hydraulic devices, or other of the appliances of to-day, and yet the ancient Egyptians were performing similar miracles twenty-five hundred years before. One hardly associates colossal structures with the Japanese after becoming familiar with their diminutive houses and gardens, the dainty dishes, and the delicate and tiny objects associated with their life, and

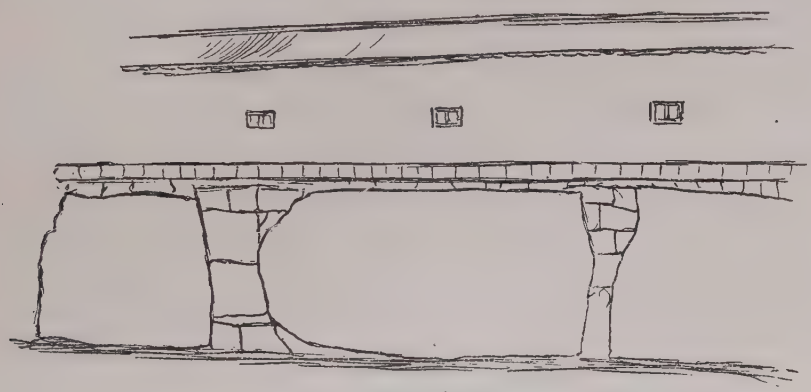


Fig. 609

yet the Osaka castle is a marvel in the gigantic structure of its walls. There are many instances of huge and ponderous structures, as the giant bells in Kyoto and Osaka, the Dai Butsu in Kamakura and Nara, and the great stone tori-i, but with the exception of the old castles and castle walls and the great temples, which tower above the dwellings as the cathedrals dominate everything in Europe, the structures are usually diminutive and delicate.

An exhibition of natural products and manufactures was going on at Osaka, and it was filled with objects of various kinds. The remarkable character of the people was seen in the

great number of devices which they have adopted from America and Europe. The ability of a nation not only to recognize immediately the convenience and usefulness of a device, but to proceed to its adoption and manufacture, is an indication

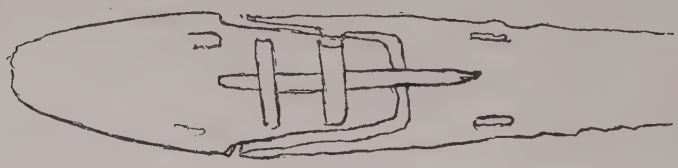


Fig. 610

of the long civilization of the people. Only a high civilization is capable of doing this; the savage and the barbarian are incapable of it. At the exhibition were the remains of a boat dug up near Osaka. The portion preserved was thirty-five feet in length, four and a half feet in width, and two feet in depth. It was made in two parts interlocking, with the wood wrought into the bottom in such a manner as to leave transverse loops through which a bar passed to hold the two parts together. It was very much decayed and the details of its structure were hard to make out (figs. 610, 611, 612). It was

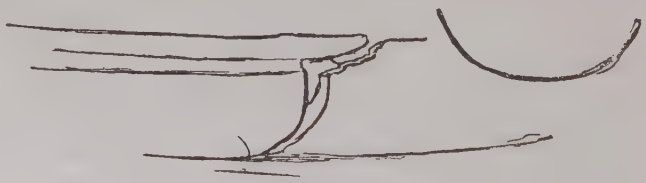


Fig. 611

supposed to be over a thousand years old. It is curious that a boat divided into two portions may be seen to-day in Kagoshima Bay. (Fig. 568, p. 154, vol. ii.)

The mosquitoes are a great scourge in Japan. The big, square, box-like netting, already described, enables one to sit inside with table and lamp, and in this way in summer and fall I have been able to write.

Fig. 612

My children early adopted Japanese dress as being much cooler in summer than their own form of dress. Many of the Japanese teachers in the University, while adopting our form of dress, as more convenient than theirs with the flowing sleeves and skirts, nevertheless find their own dress much cooler in summer and warmer in winter, and always wear their native costume during hot and cold spells.

CHAPTER XVIII

LECTURES AND SOCIAL FUNCTIONS

HAVE been hard at work preparing examination papers for my class in zoölogy. This forenoon, I spent four solid hours in examination, and I pitied the students, for during the whole week they have stood examinations in chemistry, geology, paleontology, and botany. These examinations are all in English, a language they have fully to acquire before entering the University.

General Grant, on his way around the world, is now in Japan with his wife, son, and Mr. Young the writer. The Americans in Tokyo and Yokohama gave a dinner and reception to him at Uyeno Park. I paid my subscription, but had no special desire to go, having no time for such affairs. My friends, however, urged me to do the proper thing, and so reluctantly I attended the dinner. I was presented to General Grant in turn with a long string of others, and despite my prejudice admired the quiet, dignified, yet easy tone of his voice. My daughter, who was with me, greatly enjoyed the affair. General Grant spoke to her while she was standing near a doorway, took hold of her hand, and introduced his son to her with some witty remarks about his little boy, who was a six-footer, big and robust. My prejudices, due to the infernal slanders of our newspapers, were promptly swept away when I watched the man. As others had brought their boys to the reception, I got away quietly and hurried to Kaga Yashiki in

a jinrikisha, and had my boy, nine years old, awakened from a sound sleep, dressed, and hurried to the reception, that he might remember in after years that he had seen the great General.[1] At the dinner General Grant did not touch a drop of wine of any kind, and the stories of his intemperate habits, I was told, were gross exaggerations. His reception at the College of Engineering was of the greatest interest. The royal princesses in their archaic, yet beautiful court costumes; members of the Chinese Legation in their curious and rich clothing, with their white, conical hats with red horsetail plumes pendent; the Koreans in their quaint garments, ceremonial belts, and unique head-dresses; European officials wearing their decorations — were all new and interesting to me. A number of teachers from the Nobles' School, with a class of forty young girls, were very attractive, They were all beautifully dressed and excited much admiration from the foreigners, of whom there were many. In the Japanese dress as seen in masses the soft, harmonious colors and graceful folds form a striking contrast to the dress of foreign ladies. I know of no more perfect illustration of the artistic character of the people than the grace and beauty of their clothing in strict harmony with their short stature, and their jet-black hair wonderfully arranged and ornamented. The contrast is immediately recognized when they attempt our costume; their appearance is sometimes shocking. The charming group of little girls and their teachers stood near the centre of the hall in an innocent, bewildered sort of way, somewhat abashed by the admiration

[1] Later by a fortunate coincidence, we returned to San Francisco on the same steamer with General Grant and he taught my son how to play chess.

they excited. I got a Japanese to guide them to where General Grant stood with others in receiving. Later I noticed that no one helped them to the ice-cream and cake, so I got a Japanese to assist me in bringing them refreshments. They were all sitting in a row on the mats against the wall, and it was difficult for them to hold the plate of ice-cream and cake in their hands, and crumbs of cake naturally fell on the floor. A drop of the melting cream would drip on their beautiful crape dresses, and they would laugh and carefully remove the drop with paper they carried with them. This paper was crumpled up and stowed away in their pocket-like sleeves, and when they finally got up to go the mats were carefully scrutinized and every crumb gathered and wrapped in paper to be thrown away later. It was a revelation to me to realize that children of nobles were taught such behavior.

I was invited to give a course of four lectures at the Nobles' School, which only the children of nobles attend. Count Tachibana, the Director, was a most charming man, and patiently answered a hundred inquiries I made. Among other questions I asked him if the Japanese were ever demonstrative in meeting after a long absence. I was led to ask this by observing that the Japanese greeting seemed cold and formal, no hearty handshake or hearty embrace. He told me that it was not uncommon for Japanese nobles after a long absence to greet each other with an embrace, and he, putting his arms about my shoulder to illustrate, gave me an affectionate hug. I may add that later I asked a dear little boy (now a distinguished lawyer and at one time Councillor of the Japanese Embassy in Germany and in the United States), who called

me his "American papa," if his father never took him in his arms on meeting him after an absence. "Never," he said. "But how does he show his affection?" "He shows it in his eyes." And afterwards I was present when his father, from a distant town, came to my house and greeted the boy, his eyes showing parental love in the tenderest manner.

The Nobles' School is a huge, two-storied, wooden building with a front of two hundred feet or more, as barny and inartistic as many of the structures the Japanese have erected after foreign models. At the ends are wings running backward a hundred feet or more, and the enclosed ground space between these wings is utilized in making a great map of Japan: the ground built up like a relief map with mountain chains, rivers, lakes, etc., the lakes filling with water and the water running in the rivers when it rained; the top of Fuji painted white to represent snow; short green grass for the levels and actual rock for the mountains; and towns and villages indicated by little tablets bearing the names of the places. The ocean is represented by little gray pebbles which, reflecting the rays of the sun, glisten like water. Across this beautiful and instructive area black wires are stretched to indicate the degrees of latitude and longitude. It was a pretty sight to see little girls daintily walking across the pebbles to point out the town or village in which they lived. The main island of Japan ran across the area diagonally, and was over a hundred feet in length. It was designed with the delicacy and precision which characterize all Japanese work and was in a perfect state of preservation despite the fact that it was in a school yard of hundreds of pupils. Again I could not help surmising in

what condition a similar device would be in a school yard at home!

It was in this school that I learned for the first time that even the children of nobles dressed in the simplest and plainest of clothing. They were no better dressed than the school-children of the public schools from the primary to the high schools, though this plainness of garb was in no way a school uniform. My attention has slowly been drawn to this simplicity of clothing of school-children no matter of what grade or class, and here at the Nobles' School I got an answer to my query. Asking of Count Tachibana an explanation of this method of simple dressing, he said it had always been the custom in Japan for wealthy families to dress their children plainly when they attended school so that the poor children would not be ashamed of their own clothing! The same inquiry was afterwards made in the great commercial city of Osaka, with the same reply.

My last lecture at the Nobles' School was attended by members of the Imperial family as well as by many nobles and their families. Nobles indeed they were in their simplicity and courtesy. The unaffected charm of manner was beyond expression. It was an interesting experience, and though awkward at first, in that I had to lecture through an interpreter, I finally got used to uttering a sentence at a time which my interpreter, Professor Yatabe, repeated in Japanese. After this last lecture a regular course dinner was given in our style, and it was excellent. There were three hundred and fifty at the dinner, and I quietly observed their movements and behavior. The subdued conversation, the modest acknowledg-

ments, the bows and concessions, were all marked by extreme simplicity and exquisite refinement.

I received an invitation to lecture before Mr. Fukuzawa's famous school. Among the many distinguished men I have met in Japan, Mr. Fukuzawa impressed me as one of the sturdiest in activity and intellect. I illustrated my lecture with objects and drawings on the blackboard and endeavored to explain to the students the simple factors of natural selection. In every experience of this kind I have noticed how quickly the Japanese grasp the points, and I soon realized the reason. The Japanese are more familiar with the animals and plants of their country than are we with ours; indeed, the familiarity of the country boy with flowers, fungi, and insects and the like is akin to that of those who collect and study these objects in our country. The country boy has common names for hundreds of species of insects where our country boy has ten. I have often been amazed at his knowledge of structural detail. An experience I had with a little country boy will illustrate this. I was showing him, with the aid of a pocket magnifier, a peculiar feature of an elater beetle which when placed on its back jumps into the air. One has to examine the structure with a lens. It consists of a projection on the last thoracic ring below, and this fits into a socket on the first abdominal segment. The insect bends the thorax and the abdomen dorsally while resting on its back; the projection comes out of the socket and rests on the edge; and then, by bending the body ventrally, the projection rests for a moment on the edge of the socket and finally snaps in with a violent jerk causing the beetle to jump into the air several inches. Now, I am sure that with us only

entomologists are familiar with this structure; yet this Japanese country boy knew all about it, and told me it was called a rice-pounder, the spur or projection representing the pestle and the cavity the mortar. The boy was delighted, however, to see this structure magnified with a fine lens.

After the lecture Mr. Fukuzawa gave me a remarkable exhibition of fencing by the students. They were all dressed in fencing armor. This consisted of a thickly wadded headpiece, with lappets protecting the neck and heavy bars of iron in front to protect the face, and a stiff jacket with arms and shoulders additionally protected by polished pieces of bamboo. The jacket had a skirt of several wadded lappets. The foil was made up of slats of bamboo tied together with a handle long enough for the two hands to grasp as in the long Japanese sword. The great blow is directly down upon the head, and, with the hands holding the foil vertically, the pushing of one hand forward at the same time the lower hand is drawn backward brings the sword down with lightning-like rapidity.

The class was divided into two groups of fifty, the leader of each class standing back with his retainers protecting him. The leaders had tied on top of the hood a disk of soft pottery, two and one half inches in diameter, with two holes for the string, and the object was to smash the disk of the opponent. The noise of the clash was terrific; the slats of bamboo made a resounding whack, though the blows did no damage. Mr. Fukuzawa called my attention to one of the boys who was the son of a famous fencing-master. It was wonderful to see the dash with which he penetrated the crowd and smashed the

pottery disk on the head of his opponent. The disk flew into many fragments, and one could instantly see the result of the combat. Though the boys wore long-sleeved gauntlets, many came out of the fray with bruises and bleeding scratches on their wrists.

CHAPTER XIX

JAPAN IN 1882

AFTER an absence from Japan of two years and eight months I arrived for the third time in Yokohama on June 5, 1882, and again experienced the novelties of sounds, odors, and sights which invariably impress the traveler. Doctor William Sturgis Bigelow, an ardent admirer and collector of Japanese art, was my companion. It was ten o'clock at night when we landed, but nevertheless, we ate a hearty meal after having nearly starved to death on the steamer, and despite the rain which was falling, started off for a brief walk. Crossing the creek near the hotel we sauntered along the narrow road known as Homura, bordered on both sides by little shops, most of them closed. The people clattering along on their wooden clogs, the flickering of lanterns, the curious hum of voices within the houses, the odors of tea and cooked food, all were as interesting to me as if I were experiencing them for the first time.

We went the next morning to Tokyo and by jinrikisha to Kaga Yashiki. As the Ginza and Nihonbashi were torn up for the construction of a horse railway, we rode through the castle grounds, passing over the moat and along its side for a while. As we rode through the Hongo it was delightful to see that no changes had taken place. The watch-repairer on the corner; the curious little dwarf with no chin; the fish-chopper with his rap-a-tap; the gold-beater with his monoton-

ous pounding; the cooper and the straw-hat maker, — they were all at work as I had left them nearly three years ago. Great changes have taken place in Kaga Yashiki. Large sheds are erected back of the house Dr. Murray used to occupy, in preparation for laying the foundation of the University building. Dr. Murray's house has had a large ell added to it, and the building is to be a school for foreign music. An old teacher of music in the Boston public schools, Dr. Mason, has been employed as instructor, and the work he has already accomplished is little short of marvelous. He has worked with devotion with his young pupils and the progress already made is incredible. Foreigners find the greatest difficulty in learning Japanese music, but apparently the Japanese children find no difficulty in learning ours.

On the steamer coming over I had given three lectures on Evolution, raising over fifty dollars for the benefit of thirteen shipwrecked Japanese fishermen who had been rescued by the United States steamer Pensacola and brought to San Francisco. The officers had raised fifty dollars for them and provided them with clothing. Dressed in blue, with hats bearing the name Pensacola, they were an odd-looking lot. With Mr. Tashiro, a Japanese merchant, who came on the same steamer, we went to the money exchange and I converted my money into Japanese paper currency, getting nearly ninety yen. We then went to a Japanese inn where the shipwrecked men were waiting to be transported to their native provinces. Mr. Tashiro ascertained how many had families. By a tremendous feat of mathematics I found that each man could be given three yen, each wife two yen, and each child one yen. It was

delightful to witness the pleasure and gratitude they showed. Though the amount was small, it was for each a month's earnings, or more.

A quest for pottery showed unexpected conditions, for where formerly the bric-à-brac shops were filled with interesting pieces, now they are scarce; tea-jars, particularly, as the cult of the tea ceremony has been revived, and tea-bowls, tea-jars, and other utensils have come into use again. Furthermore, in England and France, the collecting of Japanese pottery has become a craze, and a few in the United States have begun to see the charm of Japanese pottery and even art museums are beginning to appreciate these objects.

The dear little boy, Miyaoka, who bade me good-bye nearly three years ago, came to see me to-night and I hardly knew him. He was dressed in foreign clothes and had grown to manhood. He had lost a little of his English and stuttered slightly when embarrassed. When I visited the Museum the next morning I found gathered in Director Kato's room a number of the Japanese professors expecting me; Professors Kikuchi, Mitsukuri, Yatabe, Toyama and Vice-Director Hattori. Soon after, Dr. Kato came in. If warmth of handshaking and hearty voices betoken anything, it was evident that they were as glad to greet me as I was to greet them. The finest tea in Kutani cups and the best cigars were passed around and we had a delightful time comparing notes. All the clerks bowed profoundly, the servants smiled a glad welcome, and I felt that I had not been forgotten. With Professor Mitsukuri, who is Professor of Zoölogy, I entered the old laboratory. My old servant, Matsu, fairly beamed with joy. Mr.

Ishikawa was working away at some exquisite drawings; Mr. Tanada, my former assistant, was on hand looking a little older, but was the same faithful fellow. He has charge of the Museum, and Matsu has become one of the officers of the college with higher pay.

After looking about for a while we crossed the street to a large two-storied building erected since I was here before. This was the Zoölogical Museum. The last work I did before I went home was to draw the plans of a two-storied building. My plans had been carried out to the letter. Many new cases had been built similar to the first ones I made, and I must confess to a feeling of gratification when I entered the main hall to see a full-sized portrait of myself, neatly framed, hanging on one side of the main entrance, with the Director's portrait on the other side. The artist who drew the pottery for my Omori shell mound memoir had made a full-sized portrait from a small photograph, and had certainly got a good likeness. The Museum was in far better condition than I had expected to find it, though I can see that my help will brighten it a little.

In the afternoon Dr. Bigelow and I were invited by Mr. Takamine to dinner at his house at Koishikawa, Mr. Miyaoka and his brother, Mr. Takenaka, coming for us to show us the way. The house and garden were in pure Japanese style. One room only was furnished with bed, high desk, tables, chairs, and the like, as Mr. Takamine, a graduate of the Oswego Normal School, found our ways more convenient. Among other features of interest he had an archery range. I tried shooting, but found the bow very awkward, as their method

of release with the arrow on the right of the bow is so different from our method of shooting. He had also a croquet ground, and his mother, a sweet old lady, and Takamine's brother played. Young Mrs. Takamine is charming and very intelligent, speaking English fluently. About six o'clock dinner was brought in for three, the ladies and boys acting as waiters. It was a most delicious dinner in pure Japanese style, and it was interesting to see how promptly Dr. Bigelow ate every course with a genuine relish. Before we had finished our dinner two beautiful kotos (Japanese harps) were brought in and placed on the mats. One belonged to young Mrs. Takamine, the other to her blind teacher, one of the most famous koto players in Tokyo. Mrs. Takamine revealed herself as a skillful player. She then brought out a violin, and the blind teacher tuned his koto to the scale of our music, the bridges supporting the strings being moved up and down the instrument to bring it in tune with the violin. I wondered what kind of an ear-destroying performance was coming, for it seemed incredible that Mrs. Takamine should be able to make a true note on so difficult an instrument as a violin. I was not prepared for the surprise that followed, for she played with great strength and accuracy "Auld Lang Syne," "Home, Sweet Home," and "Glorious Apollo," while the blind teacher played an elaborate accompaniment on the koto, such as one might play on the harp. Mrs. Takamine played without her notes, and the blind player, of course, had never been able to see a note! The music was simple enough, but the perfect harmony in the performance was what amazed me. Her violin instruction covered only forty-seven days. I hardly knew which

most to admire, Mrs. Takamine playing on a foreign and difficult instrument or the koto player changing his instrument and playing in a key and scale entirely foreign to him and playing in a very elaborate manner. We stayed very late and the experience was delightful.

June 10. At the dry-goods shop and at other places where my children used to go I was immediately recognized, and inquiries were made for O baa san, John san, and O Edie san. Tatsu, my old jinrikisha man, with his little girl, called on me, and the next day his wife came with a present of a box of cake from Tatsu.

June 15. Attended the parting dinner given to Professors Netto, Chaplin, and Houghton. The dinner was given in a new building at Shiba Park known as the Koyokwan, belonging to a club of Japanese. The rooms are very beautiful; wonderful bits of old wood-carving have been worked into the rooms in a very effective manner. The dinner was excellent as all good Japanese dinners are. Before we were through some old Japanese comic acting was introduced, one act being a man fighting the spirit of a mosquito. Koto players gave some curious music. (I was told by a Japanese that their word for music, literally translated, meant "tone pleasure.") After dinner the geisha girls danced and sang and the same old juggler that I saw here three years ago performed his tricks. When I came away a box was given me which contained cake and candy. The box, eight inches square, was made of thin white wood and a little handle to the cover was cut out of green

bamboo (fig. 613). (I was told by Takamine that the bamboo attained its growth in one year.)

I called on Ninagawa and it seemed to give him a melancholy pleasure to see me. He appeared not a day older than when I last saw him. I bought of him one hundred and twenty-seven pieces of pottery, many very rare. I attended a meeting of the Biological Society at the University. The society has now thirty-eight members. I gave them a little talk on changes of fauna. Mr. Ishikawa communicated some facts regarding protective coloring in crustacea. It was interesting to see the society which I had established not only in existence, but holding its regular monthly meetings.

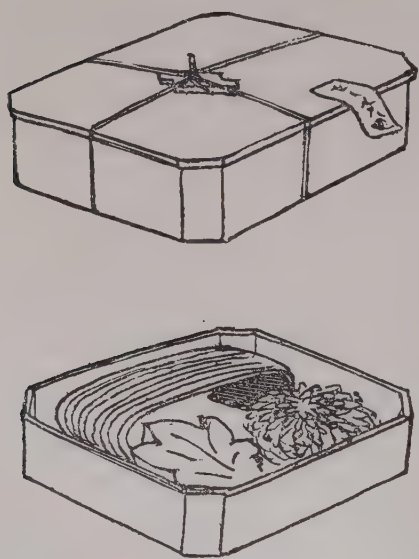


Fig. 613

The University authorities have given me a little house just back of the astronomical observatory. The house has two rooms, one of which Dr. Bigelow has, and a large closet, and accommodations for a Japanese servant and his wife. Back of the house is the insane hospital, and we are lulled to sleep by the songs of the maniacs, enlivened now and then by the shrieks of some cases of acute mania.

By appointment my old jinrikisha man came for me to take me to his home. He was neatly dressed, and though I sug-

gested going in my own jinrikisha, he leading the way, he would not listen to it, but insisted upon taking me off in triumph for a ride of three miles. He has a nice house, given to him by his father, who lives in Owari. His wife and child were dressed in their best, and cake, candy, and tea were offered me, and I endeavored to show my appreciation of their welcome. Conversation is difficult between persons who do not speak each other's language, and so we had to converse with bows and smiles. I was asked to remain to dinner, but excused myself on account of other appointments.

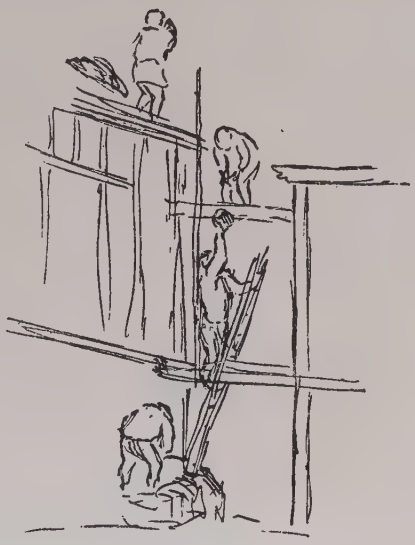


Fig. 614

This evening I attended a dinner in foreign style given by the Japanese professors at the Seiyoken. Dr. Bigelow was also invited. Imagine my surprise and delight when I found that they had invited a number of my old friends. There were thirty-two present, all Japanese, and as I passed round the room, greeting each one in turn, I was glad to find that not a single name had I forgotten. One Japanese said that he had been associated with his English professor for a year or more and the Englishman could not call him by his right name yet! It was gratifying to find that all my old special students were professors in the University, or in other colleges, while my old assistant

is now permanently engaged as an officer of the Museum. Professor Toyama made the address of welcome in English; Mr. Fujita, of the Hochi Shinbun (newspaper), made a speech in Japanese. Mr. Kaneko, in his speech, directed part of it to Dr. Bigelow, and the Doctor made his first after-dinner speech in return. He urged the importance and necessity of

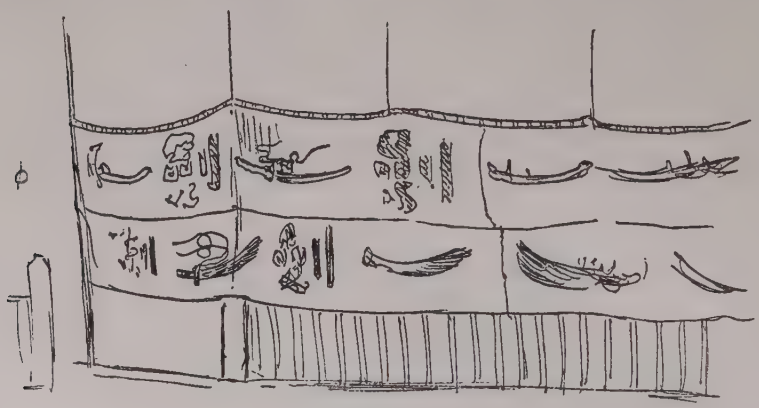
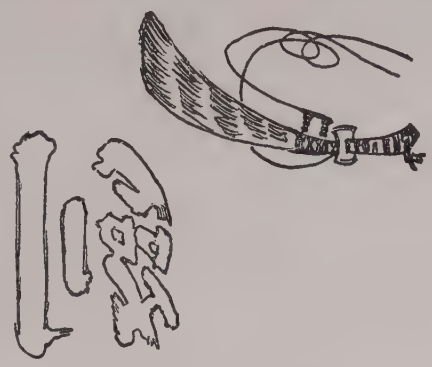


Fig. 615

the Japanese adhering to their own methods of drawing and painting. It was certainly the most delightful experience I ever had.

The construction of a house near by gives me the opportunity to watch every detail of the work. Mr. Greenough, a Boston architect, on his way to India, tells me that the Japanese way of mortising beams, curious as it is, is no better than the method practiced by our carpenters. Certainly the Japanese mortising is very complex in design. Mr. Greenough admired the way the Japanese use the adze and would like to see more of that kind of work in America. The Japanese tools seem sharper than ours, and the planed surfaces of the woods are

delightful to smooth with the hands. Dr. Bigelow called my attention to the fact that in a Japanese saw the teeth are small near the hand, but increase in size toward the end.[1] The roofing tiles are bedded in dark, sticky mud which is kneaded into balls and is passed up from one man to another till it reaches the roof (fig. 614).



(*Character reversed on screen*)

FIG. 616

A few days ago a Japanese sword dealer, of whom Dr. Bigelow had bought a good many swords and sword-guards, offered to bring his friends to the yashiki and show the Japanese style of fencing. He came accompanied by a number of famous fencers and wrestlers. It was an interesting sight to see them grouped on the grass in front of the house. A long white curtain, decorated in black with swords and Chinese characters, was hung up as an awning, making a protection from the oblique rays of the sun (fig. 615). The characters and sketch (fig. 616) were repeated on the screen. They fenced with foils of bamboo, with spear and sword, and with a weapon known as the "chain scythe." This weapon was used in feudal times, and their

FIG. 617

[1] Details of house construction are given in *Japanese Homes*.

handling of it was very interesting to watch. A peculiar kind of wrestling called *jujitsu* was demonstrated, in which one was taught how to kill a man in combat without the use of weapons. In this method of wrestling, a weaker man is taught how to take advantage of the efforts of a stronger man. It was impossible to get any sketches of the fencers so rapid were their movements, but a few outlines were made of their weapons (fig. 617). The fencers stooped opposite one another with their masks on the ground. When their names were announced they tied on their masks (fig. 618) and banged away at one another in lusty fashion, keeping up a most infernal yelling at the same time. These men had come to the yashiki expressly to demonstrate to foreigners their various arts of fencing, and their services were given gratuitously.

Fig. 618

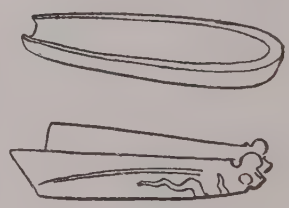


Fig. 619

In making tea, if the tea is choice, the teapot is first filled with water hot from the kettle. The water is then poured away, and the tea is immediately put in, and at the same time the cups are

filled with water. The tea becomes slightly moist in the teapot from the steam which remains, and the water in the cups is then poured into the teapot, and though lukewarm a fine flavor is produced. Care is taken not to pour the tea from the canister directly into the teapot, as the steam would affect the tea in the canister. It must be taken out with a scoop. Even the tea-scoops are dainty bits of art. Figure 619 represents a few forms. Miyaoka while illustrating this process told me that if a man had drunk too much saké the night before, the tea grounds of tea made in this way, eaten with a little sauce, was an excellent antidote.

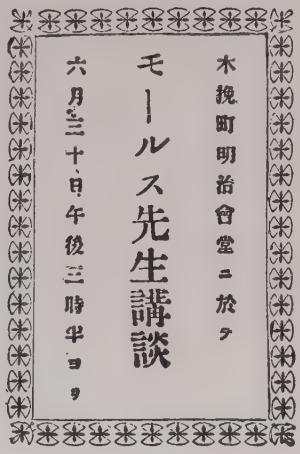


Fig. 620

On June 30 I gave a public lecture under the auspices of the Biological Society in a large hall recently built in foreign style and having a capacity for seating fifteen hundred persons. It was densely crowded when I got there. Mr. Ariga acted as my interpreter, and my subject was the antiquity of man with a sketch of the evidences of his lowly origin. In my audience were several Buddhist priests and one Korean. I saw many familiar faces, and it seemed like getting back among old friends as they watched me with kindly eyes. Many Japanese ladies were present, Viscount Tanada and his wife, Ninagawa, and other antiquarians and scholars. Figure 620 represents the ticket of admission.

The other night a number of Koreans came to the observatory with Mr. Dan, who had them in charge. I was presented to them collectively, and they immediately bowed and presented their cards and we exchanged. The Koreans seemed much interested in what they saw and were a fine-looking body of men. Their dress was of silk and more like the Chinese than the Japanese dress. Their hats, which were tied on with ribbon behind the ears, terminating in a long pendant in front, appeared to be made of mosquito netting, but were made of

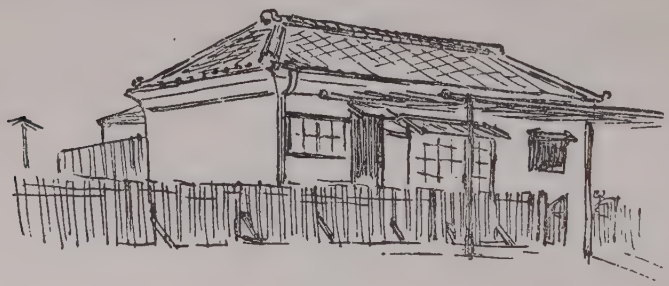


Fig. 621

horsehair, and within could be seen their hair tied in a knot. Their language sounded like a cross between that of the Japanese and Chinese. I talked with them through a Japanese interpreter who could not speak English, so I had first to converse with Mr. Dan in English and he translated my words into Japanese, and the interpreter converted them into Korean. I also talked to them directly with my limited knowledge of Japanese, for in their residence here they had picked up about as much Japanese as I had. They shook hands cordially on going away.

Figure 621 is a rough sketch of the house in which the janitor of the observatory and his wife reside. My room (fig. 622)

is about twelve feet square, and in it I have a double bed, two trunks, a desk, two bureaus, two chairs, and a washstand. The bureaus are entirely covered with pottery, books, papers, etc. One may imagine how I am crowded, and yet I enjoy having things where I can literally lay my hands upon them.

Mr. Takenaka, who is a student in the Medical College, which is carried on by German doctors, and where the instruc-

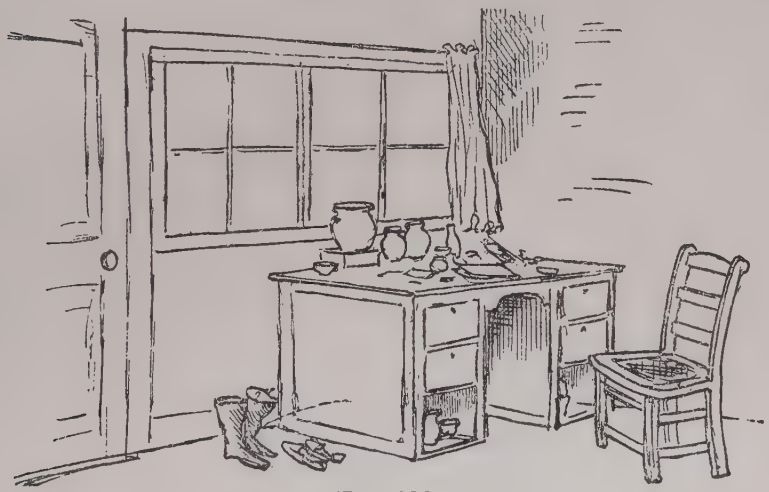


Fig. 622

tion is in German, is, of course, a good German scholar, but he has learned English from his younger brother, Miyaoka. He has given me many items of interest. The Medical College that he attends has for this year (1882) 1457 students, of whom 397 are in the preparatory school; 159 are studying medicine and surgery in German; 818 are studying medicine and surgery in Japanese; and 83 are studying pharmacy. It is really wonderful that the Japanese are so promptly giving up the ancient practice of Chinese medicine and adopting what

their common sense teaches them is based on reason and science — remarkable in the fact that next to one's religious belief one clings to one's methods of medical practice, no matter how absurd they may be.

Dr. Bigelow and I were invited to the house of Mr. Kikkawa, whose family runs back thirty generations. Mr. Kikkawa was formerly Daimyo of the Province of Suo. He has a large estate and five houses near the Meganebashi. A large gate was swung open on our arrival and an attendant escorted us ceremoniously through certain passages to rooms where we were introduced to Mr. Kikkawa and to several officers of the household. Then we were led upstairs to a beautiful room having that simplicity of detail and absolute cleanliness that characterize their house interiors. Mr. Nakawara acted as interpreter. In the recesses of the room were most superb specimens of gold lacquer and rare old kakemono. The guardian of the family — I suppose one might say the steward — was a delightful spirit of the past. Compliments were exchanged, and then, on our expressing a wish to see examples of ancient swords, one after another was brought out, each sword in a silk bag contained in a fine lacquer box on which was the crest of the family in gold. The first one shown was seven hundred years old and had been used by an ancient Kikkawa in beheading some famous opponent. The scabbard was of leather as was also the cord which bound the handle. Portions of this were reduced to powder by age and this powder was wrapped in paper. This scabbard, handle, guard, and other parts were laid out on the mats with great formality and dignity, and we were invited to examine the blade.

Other swords were shown us, and such magnificent blades I never saw before. The Doctor went wild over them, but this enthusiasm on both our parts was suppressed to the last degree. It was very interesting to see Mr. Kikkawa kneeling in an immovable attitude and all the attendants, never for a moment forgetting their dignity, speaking in low, measured tones with that interrupted and hesitating manner betokening the utmost humility and awe.

We expressed a wish to see a beautiful piece of lacquer in one of the recesses. The attendant who brought it rose from his knees in one movement, reverently approached the piece, knelt down before it, gently took it in his hands, rose again in the same manner and with measured step approached us, again knelt down, and deposited the box where we could examine it. These attendants were all high samurai and have their own attendants in Suo, where the Kikkawa family have a residence, and at which place they have fine old pottery, lacquer, and pictures which will be brought to Tokyo as soon as the brick fireproof building is finished. We saw the building on entering the gate.

During our visit servants came into the room at intervals bearing in their partly outstretched arms the low bon, or tray, containing delicious food. We had a most enjoyable time, and realized that we had had a genuine glimpse of one of the many interesting features of old Japan. When we came away we were given a little souvenir of Suo, consisting of a thin wooden box about four inches long lined with gold paper, across which was a narrow strip of black cloth on which were pasted seven caddis worm-cases (fig. 623)! These common objects in our

streams are found in the river at Iwakuni. On the outside was a picture of the wonderful wooden arched bridge with a curious formula of trusses.

I was shown through the insane asylum near the house. It was interesting to see the same expressions on the faces of these unfortunate creatures that one may see in going through our asylums at home, — dementia, melancholia, acute mania, and other types of mental disease.

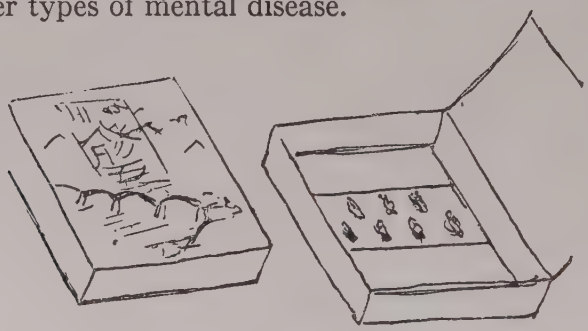


Fig. 623

We heard the most wonderful music of the flute by a Japanese court musician. The flute, much larger than ours, was made of bamboo, and the number and position of the openings were different from those in our flute. The enjoyment for us consisted in the delicious contrasts between note after note. The notes were long and of exquisite purity. It was a revelation to us. With harmony one gets these effects in our music, but in Japanese music there is no harmony, only melody. In the "Oratorio of St. Paul," our leader, Carl Zerrahn, always became specially alert in anticipation of a delicious terminal note in one phrase in the choral "To God on High."

On July 2 I attended a public exhibition of the normal

school classes that Mr. Mason has trained to sing in our methods. The exhibition was in the old Chinese college, a fine hall with good acoustic properties. Class after class came in and sang various selections. The music was our common school music, and therefore not very difficult, yet it was amazing to

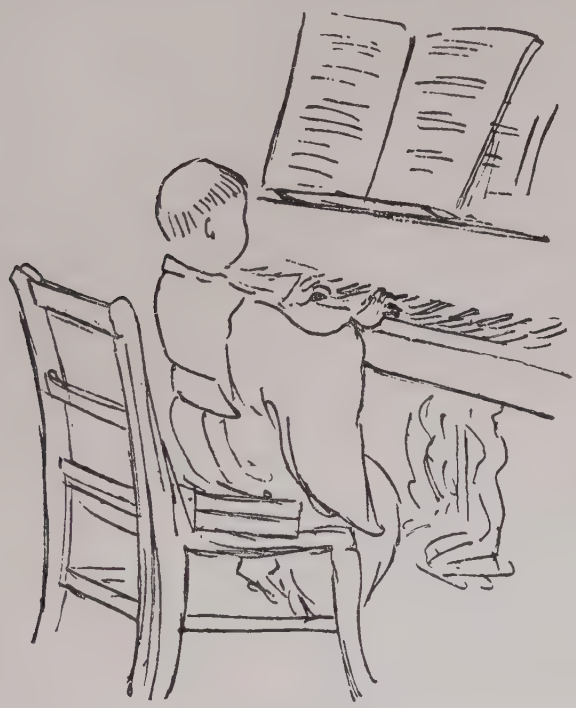


Fig. 624

hear them sing in our way. Their voices lacked the vim and snap that are characteristic of our school-children, yet there was no doubt that the Japanese could be taught to sing in our way; whether it is desirable to engraft our musical methods on them is another question. There was piano playing, and some of it was remarkably good; also an orchestra of

violins, clarinet, flute, bass-viol, etc., which played "Glorious Apollo," "Angel of Peace," "Men of Harlech," and other compositions, and really did very well. Kosaka Sankishi, a little boy of five years, scarcely large enough to reach the keys, played some simple thing on the piano with remarkable skill (fig. 624). His playing excited a good deal of interest, and Mr. Mason called him a Japanese Mozart! Figure 625 represents him writing music on a black-board as Mr. Mason played it on the violin. The boy then sang it, and it was remarkable to see how rapidly he caught the notes. He was so small that a stool was needed to enable him to reach the blackboard, but he was a bright little fellow, and when I showed him the rough sketches I had made of him he seemed to appreciate them.

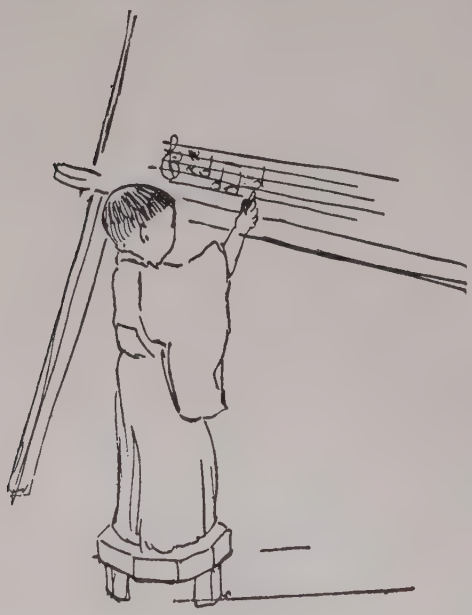


Fig. 625

One morning my servant called my attention to a curious procession of worms, evidently the maggot of some fly. They were transparent or colorless larvæ about a third of an inch long, having black heads, and being very moist they were adhering to one another and were crawling in a long compact mass across a smooth walk in front of my room. They glided over

one another, and only in this way could they crawl over the dry surface, and in no other way could they protect themselves from the number of little yellow ants that hovered on the flanks of the column. Now and then a worm got detached from the column and the ants immediately seized the straggler and dragged it away. If the forward end of the column was disturbed, the entire column instantly stopped. I dug a long ditch in front of the column, and it was interesting to observe the leaders deploy in fan shape to feel for a place to cross. Figure 626 shows a portion of the column, which was two feet long, and figure 627 shows the head of the column deploying. The column made its way slowly to the side of the house and then disappeared in a crevice. It was evident that this method of traveling was a means of protection, for an ant could not pull away an individual worm from the mass.

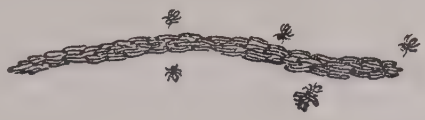


Fig. 626

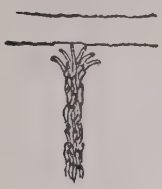


Fig. 627

July 5, I was invited to give a lecture before the Japanese Fish Commission and had an audience of intelligent Japanese. One of the princes I had met at the Nobles' School was in attendance and greeted me very kindly. I spoke of the work accomplished by the fish commissions of Europe and America and the success attending the artificial propagation of fish and other marine forms.

Takenaka tells me many items of interest. In mentioning some of our proverbs or sayings he matched them with similar

ones in Japan; thus, "Every little helps, as the old woman said when she tried to row a boat with a needle"; the Japanese say, "To dip out the ocean with a shell," and also, "To make a hole in a mountain with an awl"; and in describing a dense crowd in a hall, "There was no room to put an awl to the floor." Our saying, "Lock the barn door after the horse is stolen," is paralleled by the Japanese saying, "Carry the stick after the quarrel."

In numbering the volumes of their books, besides the usual 1, 2, 3 the Japanese use other characters. For example, if there are three volumes they use the characters for "above," "middle," "below"; if there are two volumes, "above" and "below"; or for a work of three volumes they may use the characters meaning "heaven," "earth," and "man"; two volumes may be designated by characters meaning "northwest" and "northeast." It is customary in the case of a number of volumes to preface the numbering by a character which means "roll," as in ancient times the books were in form of rolls; our word "volume" has the same origin. The Japanese signs of the zodiac are called after the names of animals, as with us. The compass is also divided into twelve points with the signs of the zodiac; north, being "rat"; east, "rabbit"; south, "horse"; west, "birds." There are two intermediate points between these greater ones, and for northeast they have the name "bull-tiger."

The Japanese used to have many superstitions about building a house that are still believed in by the lower classes. Takenaka said that when he was a small boy and the family moved to Tokyo, his father consulted a compass and found

that a certain part of the house was not in the right direction, and on account of this he after a while moved into another house. This superstition has long been outgrown by the intelligent classes. It is a common matter when friends meet to allude to the last time they met or to speak of a letter they may have written to one another.

A region in Tokyo, known as Asakusa, is famous for its high temple and avenue lined with toy shops and curious sideshows, and flocks of pigeons which alight upon you. The Doctor and I visited one of these shows. There was a little room

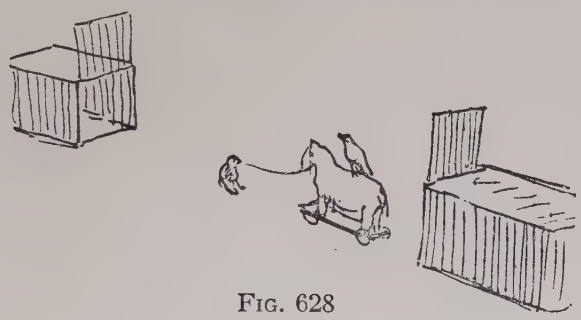


Fig. 628

with seats for thirty or forty persons, and a raised table, behind which were a number of small cages containing a peculiar species of native bird smaller than our sparrow and very intelligent. The man who exhibited them had the kindest manner and a most winning face, and seemed to have the most perfect control over the birds. The little fellows were pecking away at their cages impatient to come out and go through their tricks. Some of them were remarkable. One wondered how they could have been trained to do such things.

I made the most hasty sketches, which will, nevertheless, present a better idea of the tricks than any descriptions could

do. In figure 628 the cages stood open opposite each other, a foot apart, and a little toy horse stood between. In this trick one bird jumps on the horse, while the other takes the reins in his bill and drags the horse about the table by a series of jerks. It was amusing to see the prompt way in which the birds came out of their cages and went through the trick. In another trick (fig. 629) a bird hops up a ladder, step by step, to a staging above and draws up a bucket with his beak, holding on to the slack string with his feet. In the next trick (fig. 630) four birds come out of their respective cages, and three of them peck away at the drums and samisens which are fixed to little platforms, while the fourth tosses about some bells and jingling affairs that lie upon the table. Of course no music is made nor

Fig. 629

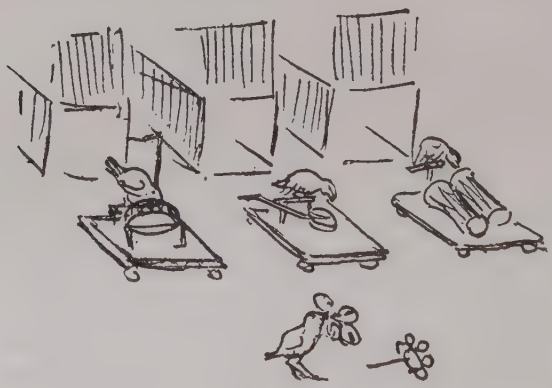


Fig. 630

time, but a lively noise is kept up, and it is interesting to see the birds go through their parts so eagerly.

In figure 631 a bird runs from its cage, mounts a flight of

steps to a bell tower, and pulls the swinging stick so as to ring the bell after Japanese fashion. Figure 632 represents a bird shooting with a bow. What he really does is to detach the string from a notch in the stick which terminates in a horse's head (a hobby horse which is a common toy for Japanese children). The arrow is shot, however, and the fan which forms the target drops from its support.

Fig. 631

In figure 633 a bird runs out and pulls a string, which rings a bell in front of a shrine. The bird then runs to a box and picking coins from the table, drops them into the box. In Japanese churches, or temples, a number of bells hang suspended above and cords

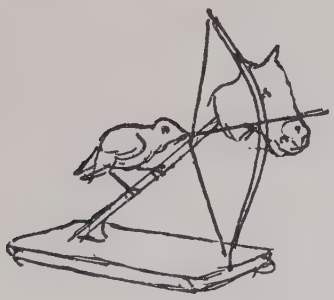


Fig. 632

hang down by them so that they may be struck by means of the cord. Worshipers do this when they pray. The con-

tribution box, instead of being a small affair on the end of a handle, passed around once a week, is a huge box, even four or five feet long and two feet deep, open above, but protected

Fig. 633

by triangular shaped bars just wide enough apart to allow the metal coin to drop through. This box stands in front of the place of worship year in and year out, and a man may stand in the street, mutter his prayer, and toss his coin into the box, often missing his mark, as may be seen by the number of coins on the earth around.

Fig. 634

The most amazing trick is shown in figure 634, in which a bird picks from the table, one after the other, three kakemono and hangs them on pegs which are on miniature trees. The bird is compelled to jump up on a low roost to reach

the pegs. To teach a bird to perform such a series of acts must have required an infinite amount of patience. In another trick a little bird runs up a ladder to a platform and throws off a number of coins, one after another, with great energy. In still another a bird, holding an umbrella over its head, runs up a long ladder and walks out on a tight rope; it also picks out a certain card and puts a cover on a box. The trainer brought out a talking parrot and a large parrot-like bird; then, holding one in each hand, he made them utter phrases alternately, such as, "How do you do," "Good-bye," etc., in Japanese, of course. It was altogether the most interesting exhibition of trained animals I ever saw. Some of the tricks were in line with the natural movements of birds in their daily life, such as picking up things, pulling strings in nest-building; but how a bird could be taught to pick up pictures and hang them on appropriate pegs was more than we could fathom.

Fig. 635

Fig. 636

The Japanese candle is made of vegetable wax, and there are a number of varieties; a kind made in Aidsu has decorations in color (fig. 635), and in some the figures are in relief. The wick consists of a hollow tube of paper; the candlestick has a barb of iron instead of a socket, and the opening in the wick below allows the barb to fit into it securely. Such a candle-

stick, long extinct, was known in England as a "pricket" candlestick. The candle is finished above with the wick protruding and pointed. The economy of this shape is seen when the piece of candle burning low is taken off the pricket and adjusted to the top of the new candle, so that not a particle of candle is wasted (fig. 636). The ordinary candle has the same diameter throughout, but in some of the finer forms the upper part is much larger in diameter than the rest and thus lasts longer in burning. The lanterns, which nearly every one carries at night, burn candles. Figures 637, 638 and 639 show sketches of various forms of candlesticks.[1] There are many forms of portable candle-holders, some quite ingenious in design; also bamboo tubes with cover, so that one can carry candles in his little pack done up in a bundle handkerchief. (Fig. 639 represents fig. 638 folded.)

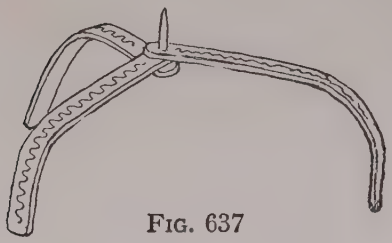


Fig. 637

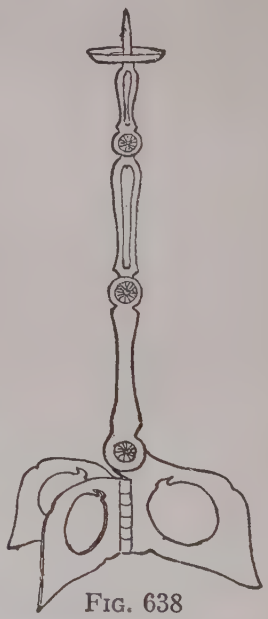


Fig. 638

A curious form of weather-vane was made of a thin sheet of metal in the form of a pennant, painted and shaded as if fluttering in the wind (fig. 640).

[1] At the Peabody Museum, Salem, is a large collection of Japanese candlesticks, some of which are portable and fold up.

July 15. I went to the graduating exercises of the Tokyo Female Normal School, and was given a seat on the platform in a position where I could see all the exercises. Before going to the main hall I saw the kindergarten children with their pretty little games of marching. It was a charming sight to see a hundred little girls, all beautifully dressed, their sleeves, in some cases, touching the floor, and so many with the sweetest faces. After this performance they went into the main hall, where the children marched up the centre aisle, keeping step with music played on the piano by Miss Nagai, a graduate of Vassar College. When they were seated, their various names were called out by one of the teachers, and each in turn came up to the platform to receive a present, which consisted of a roll of Japanese paper of large size, a stick of ink and a brush, done up in the neat way of the Japanese present, with the noshi slipped in under the cord that held it. When they approached, a very low bow was made. On receiving the present, which they did with both hands, they raised it to their heads, made another deep bow, and backed away to the steps. Such little tots came toddling along, and as some child

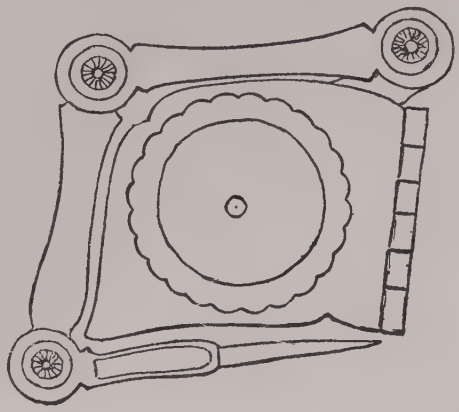


Fig. 639

Fig. 640

approached, particularly shy in her demeanor, it was interesting to watch the pleased and sympathetic smiles of the company, from the Prince and Princess, who sat on the stage, to the door attendants. It was curious to look over the large hall and see such a crowd of black heads, — no light hair, nor red, not even a gray-headed one, — all polished black hair beautifully dressed with bright red crape and dancing hairpins, and a background of attendant nurses standing up and peering anxiously to find out the position of their individual charges. The smaller children having retired, the larger girls came in, and the bright-colored hairpins, like flowers sticking up here and there, produced a very pretty effect in the sea of black. The larger girls, as their names were called, came up the main aisle very slowly and bowed low to the Prince and the Princess and the assembled guests on the stage, then approached the desk, made another low bow, received the present, which was raised to the head in another bow, then slowly turned to the left, and went back to their seats. Among these were a number that were being graduated, and when they had received the folded diploma they retired two steps backward, opened the diploma with formality, quietly examined it, folded it carefully, and then, holding it in the right hand in a peculiar manner, bowed again and retired.

After the graduating exercises the audience strolled to various rooms where lunch was served in Japanese style. In a Japanese room the graduates were served, and as I knew Miss Nagai and young Mrs. Takamine, I crossed a garden to the room where they were and ventured to join the class. It was a pretty sight to see the girls sitting on the mats in two long rows

facing each other, all beautifully dressed and served by a number of equally prettily dressed girls. I was invited to drink saké with some of them, and many bowed to me whom I did not remember having seen before. During the exercises a few of our songs were sung, "Angel of Peace," "Auld Lang Syne," the latter particularly well; then a Japanese song was sung accompanied by three kotos, three shos, and two biwas. This song was sung by the entire school. It was started by a young lady striking a long, flat, thin piece of wood with another piece of the same shape at right angles. The click was sharp and peculiar. She then uttered a long, high note without the slightest inflection, as a keynote, and the chorus began. The music was certainly very weird and very impressive, and with the peculiarly sweet accompaniment and curious rhythm, gave me an impression of the merit of Japanese music that I had never had before. Their music sounded distinguished as they sang it, compared with ours. Of course they did not sing the best of our music, or in the best way; nevertheless, here was a chance for some one to secure ideas in regard to the power of music in a new direction.

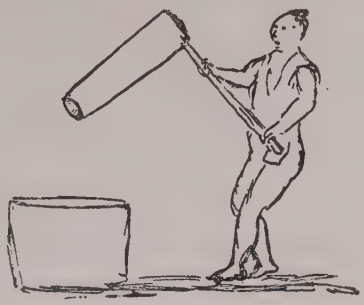


Fig. 641

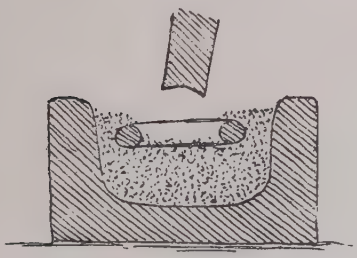


Fig. 642

In pounding rice a large wooden mortar is used. The hammer or pestle is of large size and very heavy and is raised high above the head (fig. 641). The man wears a cushion on his left leg against which the end of the handle rests as he raises the hammer in the air. It requires a strong man to do the work. The face of the hammer is hollowed deeply, with sharp edge, and in the mortar is a thick ring of straw rope as shown in figure 642. When the blow is given the rice is forced up outside the ring and drops down inside. By this arrangement a circulation of the rice is secured so that all the rice in turn comes under the blow of the hammer. This idea I have never seen carried out in similar processes before. A yellow dust, which comes from rice after it is pounded, is tied in a bag and used to wash the face. At home corn meal is used in a similar way. This rice dust is also used to cleanse greasy dishes or lamps.

CHAPTER XX

OVERLAND TO KYOTO

July 16. I have been busy packing for our great trip through the southern provinces, going overland to Kyoto and then by steamer through the Inland Sea. My passport is made out for at least a dozen provinces. Mr. Nakawara has brought me a long letter from Mr. Kikkawa, introducing me to his people in Iwakuni, Province of Suo. On the envelope was written first the name of the place and province, then the name of the person, and in one corner of the envelope the characters, "Ordinary tidings," to signify that there is no bad news in the letter. If these characters are omitted, then bad news is expected and the recipient has time to compose himself. We shall see a little of the life of old Japan; I shall add a great many specimens to my collection of pottery; Dr. Bigelow will secure many forms of swords, guards, and lacquer; and Mr. Fenollosa will increase his remarkable collection of pictures, so that we shall have in the vicinity of Boston by far the greatest collection of Japanese art in the world.

July 26. We started on our overland trip to Kyoto, having a stage and three horses for conveyance. At Sammaibashi we left the stage to ascend a steep mountain road paved with irregular boulders in the steepest portions. Fenollosa and I walked a distance of eight miles to the village, while the Doctor and the rest of the party took kagos. The Doctor enjoyed

this mode of traveling very much. At times the most charming views came in sight. It was refreshing to get on one's legs again for a good sturdy walk, for though portions of the road were very steep we made good time. It was interesting to observe that our kago men kept up with us the whole way — though we walked rapidly — and each man was supporting nearly a hundred pounds, counting the weight of the kago and all. We met at intervals men carrying heavy loads on their shoulders traveling through the pass and walking rapidly too. They were on their way to Odawara, twelve miles distant. In every village we passed there were some new forms of balcony, gateway, or pretty interior, but it was impossible, going over the ground so rapidly, to get more than a few hasty outlines. The road is so frequently traveled by foreigners going to pleasure resorts that the Japanese took no notice of us. The children did not run away and showed no timidity. Besides men of burden on foot, horses with heavy pack-saddles and enormous loads were being led by countrymen. Figure 643 is a sketch of a pack-saddle not loaded, except with the owner's sun hat, raincoat, and a pair of straw sandals; a clumsy cushioned affair passes under the tail.

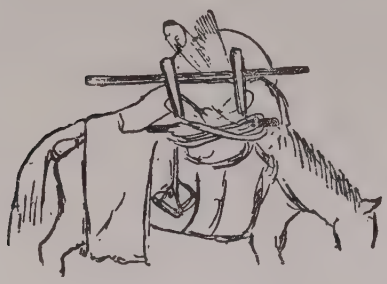


Fig. 643

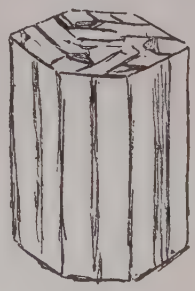


Fig. 644

In a house where two rooms come together they are separ-

ated only by sliding screens running in grooves in the floor and a hanging partition; the space above this partition is usually filled in with an open device of lattice, carved wood, or designs cut in stencil.[1] The skill and taste of these designs and the perfect cabinet-work shown were due to the fact that in the region were many men employed in making inlaid work of colored woods. Hakone is a great place for the manufacture of boxes, cabinets of drawers, and the like, in which pretty effects are produced by various patterns of colored woods. The different woods are built up solidly in firmly glued blocks, as shown in figure 644, and transverse slices are cut off as seen in figure 645, and used with other forms to decorate the cover of a box or the front of a drawer. These drawings are half size. Figure 646 shows the man at work with his glue-pot over a few coals buried in ashes. No end of intricate designs are made, and the interesting feature about it is that the man seems to use only the common tools of a house carpenter. He sits on the floor and has for a bench a large block of wood.

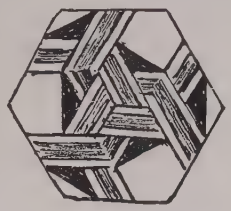


Fig. 645

Fig. 646

[1] This detail is called a *ramma*, and I found many interesting forms which are given in *Japanese Homes*.

Our inn at Hakone is within a stone's throw of the lake and beyond rises Fuji high above the mountains that border the lake. We are two thousand feet above sea-level, the lake water is cold and pure, and the air fresh and invigorating. At every moment my pencil has been busy sketching picturesque places. Figure 647 is a sketch of one of the stronger

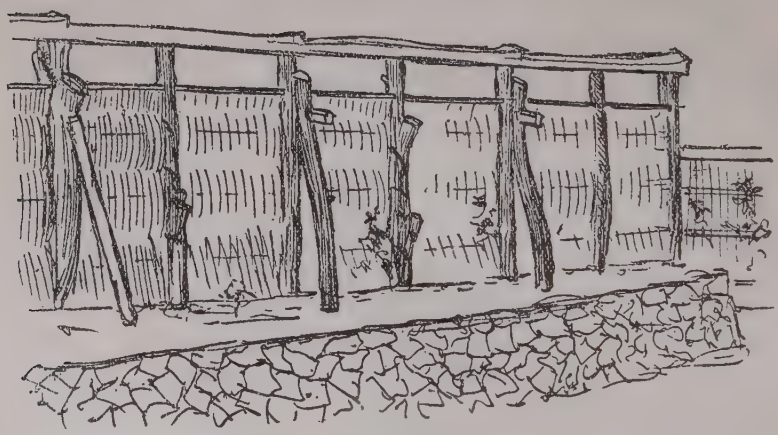


FIG. 647

kinds of fences to resist the high winds that come with the typhoons. All along the road one sees spinning and weaving going on in the houses. Figure 648 shows a woman weaving coarse straw matting used for rice bags and for other rough purposes.

We started early in the morning for a kago ride of eight miles. The descriptions of this form of transport do not at all convey an idea of this method of conveyance. There are, in the first place, three men to each kago, and they take turns in the work. In my journal four years ago I made a sketch of the ordinary kago used by the Japanese. Now at Hakone,

and probably at other places, a special kago, much longer and heavier, is made for the foreigner. They travel with the kago diagonally across the road (fig. 649). Changes are often made. Thus, two men will start off taking about ninety steps on a hill and perhaps one hundred and forty steps on a level, when they will rest the kago on the bamboo poles they carry with them, and then change shoulders, taking the same number of steps again, when the spare man relieves the forward man; then, after two more turns, the man that slipped out relieves the rear one. Going downhill or on a level they proceed in a sort of jolting run giving vent to a series of peculiar grunts. The weight each one carried was a hundred pounds at least, and this for eight or ten miles without a rest, uphill and down, showed great strength and endurance.

Fig. 648

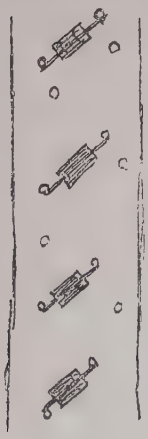


Fig. 649

It was difficult to keep an itinerary of the journey overland. We lost the day of the week and even the month. We had grand rides and tiresome ones, saw beautiful scenery, crossed long bridges over wide and shallow streams, stopped at interesting tea-houses; and at all times received that courteous attention which characterizes this people above all others. We spent an hour or so — or a day, as we did at Hamamatsu and at Shizuoka —

in hunting up old pottery, pictures, and the like; at Nagoya we stopped a few days. On our way across the country we noticed that in the inns where we spent the night the chambers were adorned with mottoes or sentiments, which, when translated, were invariably found to refer to the beauties of nature or were moral precepts or admonitions. Even in places where one may get saké the sentiments expressed by these inscriptions are highly moral. I have never seen a barroom in Japan, but, in seeing these refined sentiments, moral precepts, and the like, I could not help recalling a similar grade of country inns at home and the usual character of pictures one sees in the public rooms. Many of these sentiments are derived from Chinese classics. It is amazing how much may be conveyed by four or five Chinese characters: here is one in five characters, "Facing water shame swimming fish," which, fully rendered in our language, means, "When we contemplate the water in which the fish are swimming with calmness and ease, we feel ashamed of ourselves that we are such busy beings." How far this is correct I do not know; the translation was made by our Japanese interpreter.

When we arrived at Shizuoka, Province of Suruga, an outbreak of cholera was killing thirty or forty a day. The largest inns were closed, and it was with difficulty that we obtained entrance into one of them. The landlord said that if a death from cholera occurred, it would greatly injure the reputation of his hotel. We were promptly disinfected even before we could get out of our jinrikisha. Everybody seemed to be provided with a simple atomizer, consisting of a tin tube soldered to the top of a small tin dipper, in which was put a weak solu-

tion of carbolic acid. We had been sprayed upon at other places as if we brought the infection with us. At one place, Dr. Bigelow said, a man standing at the entrance of a house made a vigorous gesture at him as if to cut him down with a sword. These hostile demonstrations are of the rarest occurrence. I have but once experienced a similar hostile gesture. Walking with my daughter in Tokyo I passed three men who were straggling slowly along. We did not know that it is considered a rude thing to overtake and pass one without an apology. To resent our rudeness one of the men ran ahead and, turning, blocked our way and swung an imaginary sword in the air as if to cut us down. His two companions, laughing, grabbed him and drew him away. The man was evidently slightly intoxicated. Directly after the Doctor's experience, when passing along a country road, two middle-aged and respectable-appearing Japanese bowed very low to us as we passed by, and Mr. Ariga said the act was to show their respect for foreigners.

We spent two nights in Shizuoka and devoted the entire day to collecting. I penetrated every place where objects might be found, feeling no fear of the pestilence, being always careful not to eat things which might bear cholera bacilli, or to drink water, as, in fact, one rarely does in Japan. The next morning early we started in a rude, lumbering stage without springs, and had the toughest shaking-up imaginable; indeed, at noon, when we reached the crest of a high range of hills, the Doctor gave up the carriage in disgust, and I was only too happy to follow his example. Fenollosa and Ariga went on, and we snoozed until three in the afternoon and then hired

jinrikishas, each with two men, and had a grand ride to Hamamatsu, Totomi, where we spent the night. In the evening we saw a curious dance by a lot of pilgrims on their way to the top of Fuji. They occupied the large room in the hotel that opened on the street, and formed a ring. Each one had a stiff fan in his hand with which he beat time and then went through a curious dance and chant, turning first one way and then another, the circle moving partly around. It made a weird and peculiar sight. The dancers evidently enjoyed our interest in their performance and I was invited to join them. Their heads were tied up in white cloth, and before the dance I had seen them in a room upstairs kneeling, praying, and chanting, evidently rehearsing for Fuji.

After leaving cholera-infected Hamamatsu, somewhat depressed with the melancholy atmosphere, we came in our journey to a steep ravine up which the men had hard work to drag the jinrikishas. Halfway up we passed what was apparently a mountain brook tumbling down the sides of the ravine. It was too much for Fenollosa and me to resist, and though Dr. Bigelow urged us not to drink the water, we nevertheless ventured on a few swallows and found it dead and unpalatable. When we got to the top of the ravine imagine our horror to find a wide expanse of rice-fields, the drainage of which was our mountain brook!

Our next day's ride brought us to Toyohachi, and the next morning we made a raid after pottery and secured a number of good pieces. The following morning we left at eleven o'clock and reached the great city of Nagoya in the evening. Here we spent four days, Dr. Bigelow after lacquer and sword-

guards, Fenollosa after pictures, and I ransacking every place for pottery. A good-natured old fellow named Gonza, of whom I bought a few pieces of pottery, became interested in my quest and volunteered his services in showing us around the city from one curio-dealer to another. Whether he got a commission on each purchase I do not know, but he carried our parcels and beat down the price when he thought it was too high, conducted us to places we should never have found but for him, got dealers to come to our rooms with their treasures, and at the end helped pack the pottery I had bought, which filled two large boxes that were shipped to Tokyo. At the hotel where we stopped we had large tables and chairs, which were of great convenience. The dealers were coming to our rooms all the time, sometimes eight or ten at a time, spreading out their stock in trade on the floor. Up to the last hour of our stay we were buying things, and I made some fine additions to the pottery collection.

Gonza took me to a friend of his on the outskirts of the town who was the founder of an oven known as Fujimi, where I spent the entire forenoon. Ceremonial tea was made for me, the potter grinding the tea in my presence. He showed me his collection of old pottery, in which were many good pieces, drew a picture for me, and requested me to draw one for him in return, and invited me to a formal *cha-no-yu* (tea ceremony) the next day; so altogether we had an interesting time. I was most kindly treated by the family, and on the veranda, where I sat, a large, shallow, lacquered tub was placed filled with cold water and over this I was fanned by the daughter. The cool breeze thus made was very agreeable.

The tea ceremony to which we had been invited was of such interest that I made copious notes of the formalities, though doubtless a number of details escaped me. The summer tea-room was a little house by itself about ten feet from the main house. This little building, fifteen feet square, was made expressly for ceremonial tea and was extremely simple in all its appointments. Between the tea-house and the main house ran a stone path, at one side of which was a large stone receptacle filled with water. It is necessary to describe these particulars in order to appreciate the ceremonial offering of powdered tea. A bell sounded, and we — that is Gonza, Kimura, and I — took our seats on circular cushions on the veranda facing the tea-room (marked A, in figure 650). The name of the tea-house was on a long pottery tile in four characters, the literal translation of which is "wind, moon, clear, stall," which was fully translated to me as, "The little house as clean and clear as the wind and moon!" (fig. 651). While we sat here contemplating the house, a sliding screen in it was pushed aside and the daughter Miki crept in on her hands and knees and filled a lacquered wooden vessel from the stone water basin and returned, closing the screen after her. When she had first entered the tea-house she had walked a few steps on the ground and had left her sandals resting one against the other on the stone steps, as in figure 652. After a few minutes we were bidden to go to the tea-house. Wooden sandals were placed at our feet, and on these we hobbled along solemnly to

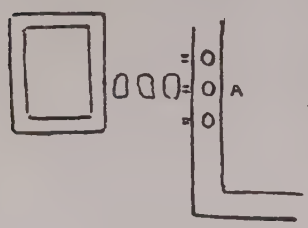


Fig. 650

the stone urn, where the host stood and poured water on our hands from a little wooden dipper and offered us a towel. Having dried our hands we entered the house by opening the screen and crawling on our hands and knees under the lattice screen, which was hanging halfway down. We first crept to the *tokonoma* (recess in room) and contemplated the kakemono, which was exceedingly plain; then we crept to the sunken fireplace, which consisted of a triangular space in which were a few stones on which rested a box of incense; and then back to the other side of the room, where we adjusted ourselves in a row and remained in silence. Some writers have described the ceremony as a religious one on account of the solemnity and austerity of the occasion. The room was of the simplest character: the ceiling made of thin, wide ribbons of dark wood braided like a mat, the corners and jogs of bamboo, or of natural branches of wood, with a warm brownish plastering. The simplicity and absolute cleanliness of the room were remarkable.[1]

Fig. 651

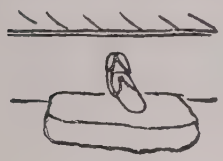


Fig. 652

After a few moments the sliding screen opposite us was gently pushed aside and Miki appeared bringing triangular

[1] This room is figured in *Japanese Homes*, p. 153.

lacquer trays, one at a time. The various dishes were of the finest description: the rice-dish was of pottery as was the large rice-spoon; the saké pots were of metal richly wrought, and the saké cups of fine lacquer. The rice was in one bowl, raw fish with pickles in another, fried eels and melon in another, miso soup and lily bulbs in another; and a covered dish was filled with richest soup served in the very dish in which it was cooked. The host in the main house, with his son, was being served in the same way, it not being proper for him to be present during the serving of the dinner. We could see him, however, in plain sight across the veranda. While we were eating, the old man entered to drink saké with us. We first drank saké with Miki, her father doing likewise. There was no *haisen* in which to rinse the cup, but back and forth it was passed on the little stand. After drinking with the daughter we drank with the host. Then a very beautiful lacquer tray was offered, in which was a little pile of cake and another in which were some vegetables; these I was too busy sketching to taste. The cake was placed in the cover of our rice bowl. After this the cake that was left was wrapped in two packages, the daughter putting one in her sleeve, the old man taking his in his hand, and both retiring from the room. Hot water was then brought and a little poured into each vessel from which we had eaten. Courtesy should have compelled me to eat the entire contents of each dish, but I was too hot to eat much, and was

Fig. 653

consequently spared the disagreeable necessity of drinking dishwater and wiping my own dishes with paper, which the others did and with great care. Every dish was thoroughly cleaned and placed in the trays and removed one by one by Miki. Then was brought in a lacquer box containing three square pieces of jelly, which was served on beautiful square lacquer trays (fig. 653). After eating the jelly with the single chop-stick, it was proper to keep this as a souvenir of the occasion. While eating the jelly, Miki entered with great formality bearing an iron vessel (fig. 654) full of burning charcoal, and placed it piece by piece in the sunken fireplace, using iron chopsticks for the purpose;[1] she then took a large feather which hung on a little peg, and kneeling in the opening by which she entered, carefully swept the mat and retired, closing the screens. One of our company then took up the little trays and carried them to the opening by which Miki had entered. Just before this, however, Miki brought in an iron kettle and placed it on the coals. The old man in the mean time showed us the incense box which we were to inspect and sniff. Here we rose to our feet and walked out on the veranda, stepped into our sandals, washed our hands at the urn, and then crossed to our host's house, where we rested, smoked, and I got a drink of cold water warranted free from all pathogenic bacteria.

Fig. 654

[1] These are called *hashi*, and represent our tongs.

After a while another gong was struck, much deeper in sound than the first one, and we went through the same formality of washing our hands and crawling into the tea-room. The kakemono had been removed, and in its place was a simple vase holding some flowers arranged as only these people know how to arrange them. Miki then appeared bearing the tea-bowl, and as she brought in the various utensils, one after the other, she pushed aside the screen, being on her knees. She then rose formally and walked straight through the opening, turned squarely round, facing the fireplace, walked a step toward it, paused and looked ahead in an absent-minded way, then knelt and reverently deposited the objects on the mat. She rose without touching her hands to the floor and retired in the same moderate manner. After the bowl had been brought in, she brought in a delicate bamboo dipper. I should have mentioned that when we entered the room the water-vessel and the jar had already been placed in their proper positions. At this stage the objects appeared as in figure 655. The tea-jar was untied and the bag pushed down on each side by the edge of the hand; the bag was then hung on the peg from which hung the feather duster. Water was dipped out of the kettle, poured into the tea-bowl, and by a rotary movement of the tea-stirrer (fig. 656) and a circular movement round the bowl at the same time, the bowl and the stirrer were both washed; the bowl was then wiped with a piece of white cotton cloth and this act was performed

Fig. 655

in a certain way. Not a word was spoken during all this performance. A slender bamboo spoon was then used in scooping out the powdered tea from the tea-jar. Miki, having taken out the customary three teaspoonfuls, was about to stop when her father said in an undertone "More," and "Still more," and several times till she had put a lot of the tea in the bowl. We sat facing her in a semi-circle, I on the extreme left, then Gonza, next Kimura, and then our host. The water was then added and stirred briskly, though every movement was made with extreme formality. The host then approached the daughter on his knees, took the bowl with a profound bow, crawled along to me, and presented the bowl with another deep bow. The tea was like the thickest, green syrup, and was delicious. I took a swallow, wiped the edge of the bowl, where my lips had touched, with my finger, and, not having a roll of paper, wiped my finger on my coat inside, then turned the bowl in such a way that, when it was passed to the next one his mouth should strike a clean place on the rim. At this point it was my duty to inquire of the host what tea it was, which I did, and he gave me the name.[1] It was actually made by a noted man and was considered the most precious tea in Japan. The cup went from one to another till it reached the host, who finished what remained, and this he did kneeling upright as if in the attitude of prayer, with a most beatific countenance, smacking his lips with great gusto. After he

Fig. 656

[1] The tea was called Hatsumu kashi, and was raised in Uji, near Kyoto; the style, or school, of the tea-making was that of Rikiu, in the time of Taiko.

had drunk the tea he wiped the bowl in such a way as to leave a pointed oval area in the bottom. The bowl was then passed round and commented upon, as it was a rare old specimen.

After this the girl took out all the utensils and the old man brought in the boxes that held the various objects and we examined them. Some of the boxes were lacquered with the name of the object, pottery, and maker in gilt letters; the plain wooden boxes were marked in black with the seal of the maker in red. While showing them to us the host said that when in use they become "tiger," and when not in use they become "rat," meaning that when in use they become useful like the tiger and when not in use valueless as a rat.

On the afternoon of the last day we visited the castle of Nagoya, one of the best-preserved castles in Japan. It stands one hundred and fifty feet high, the walls are massive, the rooms immense. It was built in 1610–12, and towers up far above the surroundings, and one gets grand views from the window openings. It is surrounded by massive stone walls and deep moats. The buildings surrounding it have spacious rooms, and the sliding screens have been decorated by the most celebrated artists of the period and the wood-carvings have been done by famous wood-carvers. In one room was a model of the castle about seven feet high. It was very interesting, as it was made as a model to follow before the castle itself was built.

Figure 657 is a hasty sketch I made while waiting for the sentry to carry our cards to the authorities within. The sketch gives the merest idea of its appearance. The massive-

ness and grandeur of the building are remarkable. Architecturally it impresses one as marvelous, with its succession of upturned roofs and successive gables, massive copper tiles, heavy ribs to the roof angles, imposing sweeps of the great roofs, and on the ends of the highest ridge immense bronze dolphins covered with scales of pure gold, resplendent in the sun. The gold represents a value of nearly a third of a million dollars. We were led to the main castle through heavy, walled, passageways and up broad stone stairways. We entered through heavy doors, and found ourselves in a vast room where ponderous beams in walls and ceilings revealed the strength of such structures in feudal times. We ascended flight after flight of stairs, landing at the head of each flight in wide, low rooms of massive construction, and came to the upper rooms, having climbed one hundred and twelve high steps, not counting the flights of stone steps and inclines we met with in approaching the entrance. From the windows of the upper hall we had a comprehensive and charming view of the country. A delicious breeze poured through the place which, after our hot climb, was very grateful.

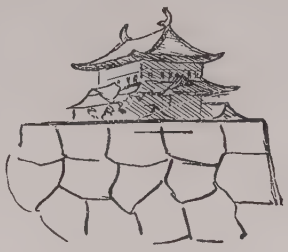


Fig. 657

We left the castle reluctantly and hurried back to the hotel to pack for our start to Kyoto at seven o'clock. Our jinrikishas dragged slowly along, but the scenery, brilliant sunset, and rest were delightful. At nine o'clock we came to a river and for five miles were rowed tranquilly over its quiet waters. Our landing-place was to be Yokkaichi, a place famous for its

pottery, known as Banko. The place was brilliantly illuminated and in the distance looked like a New England town. As we landed on the stone slope we found a festival of some kind was going on. The shore was lined with booths providing ices, and we sat down on a bench and were served several times. The ice is planed, the plane being upside down and fixed. A chunk of ice is moved back and forth over the plane, a dish underneath catching the shavings, so to speak; a little sugar is added and a flavoring of powdered tea, and it made a very cooling refreshment. It was an approach to our boyhood snow ice-cream. Though ice is very high, sixteen to twenty cents a pound, this article is sold for a cent a glass. In poorer quarters of our cities a similar custom might be introduced.

Owing to the festival the town was crowded and every hotel full, so we were compelled to ride on to the next town, starting at 2.30 in the morning, and the cocks were beginning to crow and dawn was breaking when we reached our resting-place. We were completely tired out, and were glad to lie down in a mean little inn for a few hours' sleep. I was up at eight, and after a breakfast of poor rice started back to Yokkaichi to find out how the hand-made Banko pottery was made. I came across the famous Hansuke, who cleverly moulds clay with his fingers alone and produces a beautiful little teapot. I made full notes and sketches of the potter.

At 2.30 we started again, having a most picturesque ride up a mountain ravine and, still in the Province of Ise, reached Sakanoshita in the midst of mountain scenery. Here we spent the night, and the next morning, with two men to a jinrikisha, went rapidly along, reaching Otsu at 2.30 and Kyoto at 4.30.

We rode immediately to Ya-Ami Hotel, situated high up on the mountain-side overlooking the entire city. The hotel, though Japanese, is kept in foreign style, and a rare beefsteak, baked potatoes and a cup of good coffee were delicious after the varied Japanese meals we had had. The building in which we are is approached by a long incline and a flight of steps, and is tiresome enough to reach. The rooms are good, with spacious verandas and charming surroundings. I have a tiny

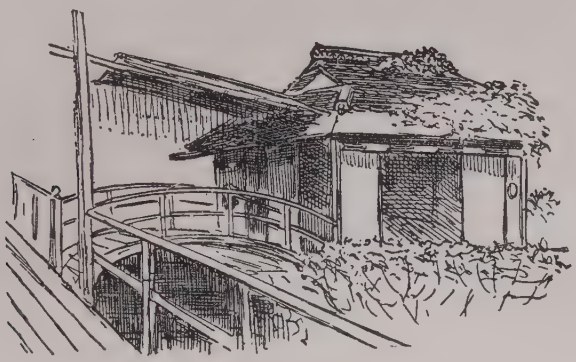


Fig. 658

house of one room to myself; a little arched bridge leads to it from the veranda (fig. 658) and a mass of shrubbery comes up level with the floor. My sketch-book is full of sliding screens, lattice-work, framework of window openings, and beautiful rammas. The grace and beauty of these designs it is impossible to show in offhand sketches. The stencil-cutting in thin wood is perfection: the dashing waves, with curious shepherd-crook processes and individual drops poised in the air, and appearing conventional to the last degree, show precisely the appearance the waves present in instantaneous photography. What amazes you in traveling through the country covering

hundreds of miles is, that in the most remote country villages there are carpenters and cabinet-makers and designers who are sufficiently skilled to do these things.

In many houses one sees swallows' nests built near the ceiling in the best rooms. As soon as the bird begins his nest a small shelf is fastened beneath to prevent the mud that is apt to drop in construction from soiling the mats (fig. 659). It was interesting to observe that the birds build a more delicate and elaborate nest under cover than when built outside exposed to the elements; indeed, it would almost seem that the birds recognized the tastes of the people with whom they live.

Fig. 659

It was interesting to note the change in the structure of the ridge on the thatched roof as we passed through the Provinces of Suruga, Mikawa, and Owari. I saw men engaged in mending a thatched roof black with soot that came from the kitchen within. The skillful way in which the modeler in plaster elaborates a ridge is interesting.

During the day we crossed a river where a number of men were engaged in making boats. I noticed two men pounding the edge of a boat's plank with iron hammers, pounding the grain down, so to speak, so that when the plank was fitted to the next plank the crushed edge would swell when wet and thus make a tight joint.

The city of Kyoto is certainly the artistic centre of artistic Japan. Everywhere you see evidences of it — in the shops,

houses, fences, roof-tops, window-openings, sliding screens and the devices for sliding them, trellises, balcony rails. The very advertisements are designed with taste — art and refinement are everywhere. Moreover, I have seen no place in Japan where the girls and little children are more prettily dressed. The hair arrangement is remarkable, and the crape for the obi and the adornment of the head is resplendent. Our hotel is placed on the slope of a mountain amidst trees and

Fig. 660

Buddhist temples. From this vantage-ground one sees at sundown the wonderful effects of sunlight across the city; at evening are heard the sound of singing voices and the notes of the koto, with merry laughter. Loud declaiming is heard, while intermingled with all comes the drowsy hum of the priests at their devotions near by; indeed, the sounds the priests emit in their prayers can with difficulty be distinguished from the hum of insects. Last night, in connection with the priestly chants, I heard a rapid tap, or ring, which sounded

precisely like an insect I had heard at Enoshima, and which was there called the bell insect. As the higher the temperature the more rapid the notes of these stridulating insects, out came my watch, and I counted the beats at thirty-five per quarter of a minute. Before seeking a thermometer, however, I asked a servant what kind of an insect it was that was making the sound and he told me that the sound was made by a priest's bell!

Fig. 661

Through the city runs a wide, shallow river. At this time the water is low and the river-bed is exposed in many places, showing large, flattened boulders. These large areas are covered with low tables, a foot high and big enough for one mat, sometimes two. The Japanese hire these tables and a large party will place them side by side. Here families gather in the evening to drink their tea, eat their supper, and enjoy the sunset. From the bridges crossing the river the sight is of wonderful beauty, as every stand is illuminated with a number of bright-colored lanterns, and it is a sea of color as far as the eye can reach, with here and there bonfires kindled on the dry river-bottom. Mr. Greenough, who is with us, says it rivals a carnival scene at Venice.

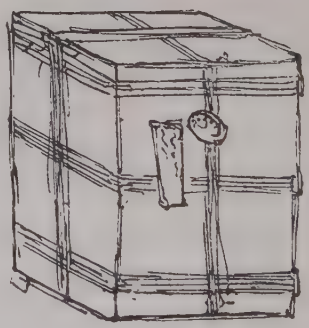


Fig. 662

To-day (August 8) I visited the artist Bairei to employ him to make a copy of a picture he had painted for Rokubei, the potter, illustrating the process of pottery-making. I found Mr.

Bairei, who is a teacher, in the midst of a class of pupils, who were busy with their work, all on the floor with their copies in front of them (fig. 660), many of them being boys of twelve or younger. Some of the older pupils, he told me, had been with him for ten years. The pupils come at eight o'clock in the morning, leaving at noon in the summer and at 5 P.M. in the winter, every day except Sunday, which has lately become a holiday. The price of tuition is thirty cents a month, and the teacher supplies paper, brushes, ink, colors, etc. In three years the pupils learn to copy well. The first lessons consist of simple lines, diaper work, and the like. The next year they paint flowers; after that mountains and scenery; and finally figures, first drawing drapery, then the nude figure from life. Some of the pupils come from the artisan class, such as potters and others whose occupations demand designs or decoration; the other pupils come from the samurai class. Mr. Bairei has twenty pupils in his daily class, besides a few who practice at their houses and bring their work to him once a week for criticism. After an interesting interview I rose from my knees. All the pupils immediately bowed low, and at the same time Mr. Bairei presented me with a large roll of

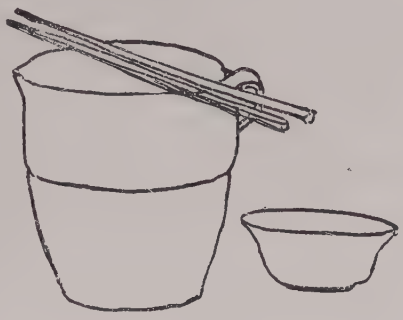


FIG. 663

FIG. 664

paper which consisted of the exercises of the school for that day: beautiful drawings in strong, vigorous brush strokes of flowers, fruit, and boats. These drawings illustrate better than all the descriptions the methods of teaching and the proficiency of the young Japanese. With the tea was offered a dainty basket of candy in the form of cherry blossoms (fig. 661).

With us it is customary to mark on boxes containing fragile objects the word "glass," and in Europe to make a drawing of a wineglass to show the brittle nature of the contents. In Japan the packer ties a pearl shell (*Haliotis*) to the box; as shown in figure 662, a drawing of the shell is also made on the box.

At a little shop where I stopped to examine the pottery, a peculiarly shaped vessel was offered me containing something like spaghetti, the strings more the size of cotton twine. It was very difficult to eat, as in taking one strand out of the dish it would stretch two or more feet before it could be wound up on the chopstick. A little cup contained the sauce. It was called *hiyamugi*. The vessel containing it was said to be Chinese (fig. 663). While I was eating the food the little daughter of the shopkeeper played to me on a kind of guitar (fig. 664).

CHAPTER XXI

THE INLAND SEA

We left Kyoto on the 10th of August on our way to the Inland Sea, and spent two days at Osaka, where we met Mr. Fenollosa and Mr. Ariga, hunting up pottery and pictures. A carnival being in action on the river the Doctor hired a big boat with dancing-girls and food, fireworks, etc. We invited Mr. Greenough to join us. It was a lovely night, and the river presented a scene of gayety. The pleasure boats are prettily built, with broad, wide floors to sit upon, perfectly dry, and the hundreds of merry groups slowly passing back and forth, with the sound of samisen and koto, singing and laughter, and the innumerable bright-colored lanterns, made a scene not easily effaced from the memory. Nearly every town in our country has a river, bay, pond, or lake. Why can't our people indulge in similar holidays? Such assemblies on the water are possible, however, only in countries of good manners.

We left Kyoto at five o'clock in the morning in a little steamer for Hiroshima, Province of Aki. We had a good-sized room all to ourselves on one side of the boat. The boat being built for Japanese stature was extremely low in height of rooms and passages, and we bumped our heads continually in moving about. Most of our time was spent on deck admiring the beautiful scenery. We arrived off Hiroshima at six in the evening, and then, taking a boat in waiting for us, we had a pull of over an hour, or rather our boatman poled most of the

way over shallow water, to the mouth of the river. It was a wide, shallow expanse of water, and we slowly moved along, passing under stately piled bridges, one after the other. The banks of the river on both sides were lined with well-made high stone walls surmounted by fireproof buildings, mostly painted black. Few people were seen despite the early hour in the evening, few lanterns were lighted, and there was no commerce on the river. The appearance gave us a very oppressive, gloomy feeling. The contrast between the commercial activity of Osaka and this sombre place was marked in the extreme. Here was a city of a hundred thousand people — apparently dead, as the cholera was raging. It was some time before we found an inn. The one to which we had been recommended had just lost its landlord by cholera, so we sat in our boat for an hour with hungry stomachs and tired bodies, depressed to the last degree by the long row of black buildings, tall, gaunt bridges, and the deathlike silence everywhere. Finally, an inn having been found that would accommodate us, we started down the river and across to the other side and landed, as it were, at the back side of the inn. Baggage was got out of the boat, and the ascent of a flight of stone steps and a walk through a long, dark, narrow lane brought us to the neatest and cleanest hotel we had yet encountered. Fenollosa and Ariga, hearing of a restaurant in foreign style, left us for what they thought would be better food, while the Doctor and I took our chances with the native food and had a first-rate supper.

The next morning I started off early to ransack the old pottery shops. A Japanese at the hotel became interested in

my quest, and was very kind in conducting me to all dealers likely to have the objects I wanted. He also told them to get together what they could and bring them to the hotel for my inspection. The result was that a continual stream of dealers with good, bad, and indifferent things streamed into our rooms for the rest of the day. Fenollosa, being disgusted with the so-called foreign food of the night before, lost all interest in Hiroshima and our intended visit to Miyajima and Iwakuni, and with Ariga started back to Osaka and Kyoto. On the 15th of August Dr. Bigelow and I started in a clean new Japanese junk for a sail through the Inland Sea. Before leaving the hotel it occurred to me that a Japanese junk was about as unstable a craft as was ever built, and that if we fell overboard my watch would be ruined. I also realized that, as we were to be the guests of the Japanese in Iwakuni, it was not necessary to carry along much money. So I asked the landlord if he would take care of my watch and money until I returned, and he pleasantly agreed to do so. A servant came to my room bringing a shallow lacquer tray without cover, telling me it was to hold my possessions. These things were then deposited in the tray which she held out to me, and placing the tray on the floor she went away. I waited for a while impatiently, supposing, of course, that she intended taking them to the landlord, who would protect them in some way. The girl not returning, I called her, asking why she left the tray. It was all right there, she said. I called the landlord, and he also said it was perfectly safe where it was, that he had no safe or other receptacle for such things. Realizing the honesty of the people in the fact that I had never seen a lock, key, or bolt on any

sliding screen in Japan, I resolved to risk the experiment, so left eighty dollars in silver and bills and my gold watch in an open tray in a room which was probably occupied a dozen times during my absence and to which access could be had by every domestic and guest in the house. We were off for a week's trip, yet on my return every bit of change to the last cent, and the watch, of course, were in the open tray as I had left them. When one recalls the warnings and admonitions in printed notices on the doors of American and English inns in comparison with this experience, one is compelled to admit the innate honesty of these people, and this is only one of the many examples I could cite. It must amuse a Japanese when he visits our country to see dippers chained to the fountain, thermometers screwed to the wall, doormats fastened to the steps, and inside every hotel various devices to prevent the stealing of soap and towels.

Returning to our junk: we had a crew of four men and a boy, and a boy from the inn to help matters. We were fortunate in securing the services of Mr. Tahara, an old student of mine at the University, who became our interpreter and accompanied us. At times the wind died out and the men rowed with long clumsy oars. The experience was unique, sailing in a Japanese junk through one of the most picturesque and beautiful waterways in the world. I fairly enjoyed the rapturous comfort the Doctor seemed to take as he sat on the roof of the cabin. Leaning back against a pile of matting with a box of Manila cigars by his side, he held his post the entire day, either dozing or admiring the varied scenery, which was indeed beautiful. As we passed Miyajima Mr. Tahara told us many in-

teresting facts about the island. We saw on the shore a large Shinto temple with the tide running under the corridors and, rising from the water, a colossal tori-i whose base is immersed at half tide, all having been originally built high and dry some distance from the shore. The effect is striking, for the island, except for the beach, rises precipitously from the water, with mountains of considerable height and great abruptness. One gets an idea of the stupendous convulsions that within comparatively recent times have caused this depression of the coast-line. Everywhere along the coast one sees these evidences of elevation and depression.

During the evening we had a breeze which finally brought us to a little fishing village, where we landed at ten o'clock at night. Our host had had a man there all day in anticipation of our arrival, and he was on hand to greet us with many bows, and jinrikishas with two men for each one. After some delay with the baggage we were off for Iwakuni, which lay in a beautiful valley some miles distant. It was such a balmy night, — everything looked so strange, the palms and palmettos, the odor of semi-tropical vegetation, and the men running and yelling like mad! It was delightful, after being cooped up all day in the junk. It was an experience never to be forgotten.

We entered the village of Iwakuni with people still awake and evidently expecting us, as they lined the street and stared at us in a way that I had not seen before. We were told that the last foreigner seen in town was seven years before our arrival. One has a curious mixture of emotions at being deliberately stared at by a crowd; in a way, it is embarrassing. Realizing that every movement is watched, you feel how ab-

surd or inexplicable some of your movements must be to the starers. You try to affect indifference, and yet you are conscious of an added dignity and importance at being stared at. You are guilty of performing acts specially to excite their attention, such as turning your pockets inside out in search of something, for a pocket in Japanese clothing is as unknown to them as it is to a woman nowadays; you raise a laugh by some gesture of annoyance; sometimes you find you are making a fool of yourself, when all the time the effort is to appear calm and natural. Mr. Kikkawa's agent conducted us to a private hotel, in which in olden times the daimyo's guests alone were received and cared for, and now it had been opened for us and beautiful old screens and kakemono had been brought down from the prince's treasures and displayed in the rooms we were to occupy. A delicious supper was served to us, and at one o'clock at night we went to bed. From the openings between the shoji I peered out and saw a large booth dimly illuminated in which a theatre was in action. A number of other booths were seen, and cries of hucksters indicated that some kind of a fair or festival was in progress, and beyond and above was total darkness.

The scene that greeted us in the morning as we pushed back the shoji was surpassingly beautiful. We looked out on a broad river-bed whose bottom of smooth stones and pebbles was perfectly bare, and beyond rose picturesque mountains, while to the right was the famous arched truss bridge of which no description can convey an idea. After breakfast the various officers in the employ of Mr. Kikkawa came to pay their respects, among them Mr. Misu, the agent of a primitive cotton

factory that Mr. Kikkawa has established here, a perfect type of the old loyal retainer with a face such as one sees in some of the old prints; Mr. Kikkawa, a distant relation of the family, who looks after things generally, with a smiling, genial, and most hospitable face; and many others whose names it is impossible to recall, and all most attentive to our comfort. They were, of course, in their native dress, and perfect their dresses were. Indeed, not a foreign notion or scrap did we see during our whole visit, and had they worn swords we should have seen Japan as it was in feudal times. It was all there except the swords: manners, customs, courtesies, and all, and it was idyllic.

In the morning we went through the town looking up bric-à-brac shops. After dinner, at noon, we were taken in a covered barge up the river a few miles to see the site of the old Tada ovens established a hundred and eighty years ago, but extinct for many years. One man stood at the bow poling, another man ahead in the water towing by a long rope, and we, reclining on soft mats, were regaled with jelly, candy, cake, and tea. We went up rapids, floated quietly across calm pools of water vibrating with wonderful reflections from the dark forests, and amidst the most beautiful scenery. A landing was finally made in a most picturesque region where a number of attendants had assembled, and such profound bows we got and so many of them! A short walk brought us to the site of the oven, now in ruins and covered by a dense bamboo growth. An old man, one of the last potters of the place, gave us an account of the pottery and processes, and after looking about for a while we went to a house where lunch was served. It

seemed as if a dinner or lunch were given to us every two hours. At this place were a number of specimens of Tada, Ajina, and Kikko pottery, some of which were presented to us and others I had a chance to buy.

About eight o'clock we started for the boat, and now bright-colored lanterns fringed the canopy and we had a rapid and delightful sail back to Iwakuni. Attendants were awaiting our arrival, and we were conducted at once to a building where the Doctor and I joined a cha-no-yu party in a charming little tea-room and drank the delicious powdered tea. After this ceremonious affair we went to an adjoining room where a dinner was given us. After all this we went to a provincial theatre and afforded a greater spectacle to the audience than the play itself, for the people, young and old, stared at us and crowded about us in a way I never before experienced in Japan. We finally got to bed, tired out by our day's experiences, all of which had been novel and delightful, and which gave us a vivid conception of old Japan with its hospitality, courtesy, and gentle manners.

We were up early again the next morning to pass another eventful day. At ten o'clock Mr. Misu came to escort us to the cotton factory. After the Revolution in 1868, when the Shogunate was overthrown, the Prince of Kikkawa made his residence in Tokyo. The government of the province being deranged by the events following the restoration of the Mikado, a great many of the retainers were thrown on their own resources, and it became necessary to find some employment for these former dependants of the daimyo. A number of gentlemen, retainers of the prince, formed a company among

themselves and established a cotton mill. This scheme was encouraged by the prince, who invested a considerable sum of money in the enterprise. To-day there are extensive buildings containing all the machinery for the manufacture of cotton cloth — rude, primitive, wooden machines, yet all bearing a resemblance to the great machines one sees in our mills at home. Over one hundred women and thirty men are engaged in the work, the men all wearing hakama, showing them to be samurai. Besides thread, the mill turns out nearly one hundred thousand yards of cotton cloth a year. It was interesting to see a tread wheel in which were two strong-looking samurai treading away patiently, supplying power for a certain portion of the machinery, while in a room outside were other arrangements to move certain machines, also turned by samurai, who, when we looked in, got off their perches and politely bowed to us. Indeed, as we walked through a long room in the second story of one of the buildings, every clerk — and there were many of them — bowed to us. We continued to the farther end of the room, where upon the floor a large carpet was spread and tea was brought to us. Then the clerks and others employed in the office came in groups of four and five, and upon their knees bowed to the floor, as we were in a kneeling position. When we entered the factory yard and during our entire progress through the factory, every one bowed to Mr. Misu and to us, and it was interesting to see how polite and kind Mr. Misu was to the operatives. He borrowed the Doctor's powerful hand-lens and showed them how the fabrics looked when magnified. In the vestibule of the office was hung up a list of the clerks, operatives, and attendants, and

these formed a coöperative society, each one paying a small assessment to help those who might become sick. What amazed us beyond expression was the absence of all dirt and grease. Every girl looked clean and neat, everybody looked pleasant, and a happier and cleaner set of people I never saw. Ruskin would have thought he was in the seventh heaven.

After these interesting experiences we were invited to a large room, where all the operatives gathered, the girls on one side of the room, the men on the other, like a Quaker meeting, and, much to my surprise, I was asked to give them a lecture, Mr. Tahara interpreting for me. I selected ants for a subject. I had no blackboard, but they all seemed to be greatly interested. Mr. Yamagata, an old student of mine, was there, and he helped now and then in difficult passages.

We then went into the third story of the building, a kind of lookout, from which a magnificent view of the river valley and surrounding country was obtained. A refreshing dinner was served from a table, with chairs about, some bright girls, prettily dressed, waiting upon us, as did three beautiful little boys, one of whom had been my constant companion the day before, with a fan with which he often fanned me. The dinner was excellent, though I had already eaten twice that day, but it is amazing how often one can eat Japanese food. I learned through Mr. Tahara that the services of a famous cook from some distant place had been secured and there had been gathered the best the country afforded. The appearance of the table and dishes was of the most artistic character. One dish, in particular had a beautiful dwarf pine, forty years old, rising from its centre; another dish, on which was raw fish, rested on

a bamboo raft, five feet long, with a most graceful arrangement of leaves rising from its centre. Both of these devices were supported on lacquer stands. Figure 665 is a very rude sketch of their appearance. This was our farewell dinner, and all this artistic and delightful affair in the third story of a cotton factory!

Fig. 665

Besides the cotton factory there is another factory for the manufacture of paper, and connected with it is a printing-house where books, pamphlets, and anything in the line of work of a printing-office is done.

At four o'clock we left the factory and were accompanied by a number of gentlemen to the house we had occupied. At that place the jinrikishas were waiting, so final good-byes were said. A large square package of white cotton cloth was given to each of us. The Doctor secured two sword-blades in their wooden scabbards, made by famous Iwakuni sword-makers, and I was given a number of pieces of old Iwakuni pottery. We managed to leave little presents for the twenty-two men who

had attended us. When we asked for our hotel bill, we were informed that it had already been paid, and the jinrikishas to the coast had also been provided. Indeed, we were literally in the hands of these hospitable people. We learned afterwards that Mr. Kikkawa had sent a man from Tokyo to prepare for our coming. We finally started amid hundreds of bows, and crowds of curious faces smiled on us as we rode rapidly down the main street and out into the country with feelings of overwhelming gratitude and affection for the Japanese race, and particularly for the Prince of Kikkawa and his loyal subjects, who, despite the change of political conditions, preserve, as of old, their fealty to their prince.

During this delightful ride, with remarkable atmospheric effects, as the mists were slowly rising from the meadows and rice-fields, with the dark thatched roofs silhouetted against the white mists and a dark range of mountains beyond, we mentally digested the remarkable experience we had had. Reaching the coast village, we were taken to a little tea-house in a wonderful garden, where tea and cake were offered us, and finally, when we got aboard our junk, a number of boxes of cake and candy were given us.

Our next port was the famous village of Miyajima, twelve miles distant, accounted one of the most picturesque and beautiful places in Japan. There being no wind the sailors rowed or sculled the entire distance to Miyajima. It was a delightful experience sitting on deck in the balmy southern air watching for the August meteors and reflecting on the unique experiences we had enjoyed. I had ample time to call the Doctor's attention to one beautiful meteor before it disappeared.

We arrived at Miyajima at midnight, and walked up through the quaint and silent streets to a tea-house situated in a deep ravine, and soon got to bed and to sleep. The next morning (August 17) we had a delightful surprise as we opened the shoji and looked out on a beautiful wild ravine, cool and refreshing. Deer came out of the wild forest and looked at us with gentle eyes; one even came into the enclosure in front of our room and ate a rind of watermelon from my hand. I supposed they were deer kept in confinement and tamed, but when I walked through the village some hours later I met them in the street, and found that they were not prisoners or park specimens, but came down from the mountains. In other words, they were wild deer that had never been treated unkindly.

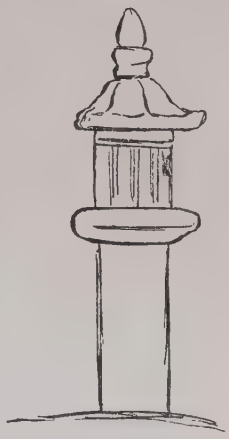


Fig. 666

The famous Shinto temple has its long corridors, decorated with pictures by various artists; some of the pictures very old and their details partially effaced by time, but we spent two hours in examining them. There were also curiosities in the shape of old bamboo roots; an interesting painting of a bamboo made by a boy six years old, some remarkable wood-carvings of deer, and appended to one carving was the chisel used by the carver. The temple is about seven hundred years old, and a stone lantern which stood near one of the corridors is also seven hundred years old. Figure 666 represents the lantern, or ishidoro. In the street near the ravine are curiously constructed aqueducts which supply

the houses with water, one near our inn was very primitive in its construction. On a huge square pile of stones was a large wooden trough, the sides of which were perforated with holes, and out of these poured streams of water into water-conductors of bamboo, as shown in figure 667. These connected with bamboo pipes underground which led to various houses in the village. In another ravine bamboo gutters con-

Fig. 667

veyed the water long distances. In one place a strainer of bamboo in a box was used as shown in figure 668. By these various devices the village of Miyajima was supplied with the purest water from mountain brooks.

A simple method of automatically closing a gate is shown in figure 669. A weight hangs from a cross-bar above. By its weight the gate is kept closed, and when one enters, the weight bangs against the gate a few times, thus answering the purposes of a door-bell. The deer that roam freely through the main street of the village are inclined to wander into the gardens, and this device is made to keep the gate closed against their intrusions.

Miyajima is regarded as a very sacred place, and the absolute repose and tranquillity are beyond description. No animal was allowed to be killed on the island. We were told that only within a few years was any one allowed to die on the island. Formerly, when one was near death, the poor creature was put into a boat and rowed across to the mainland where the cemetery is located. If any one climbing the mountain accidentally injured himself so as to bleed, the earth upon which the blood fell had to be scraped up and thrown into the sea. Here is a village of servants, wood-carvers, shopkeepers, and the usual make-up of a village community. By what mystery do they elect to behave themselves? Why are the children always so good? Are they effeminate? They make the best soldiers in the world.

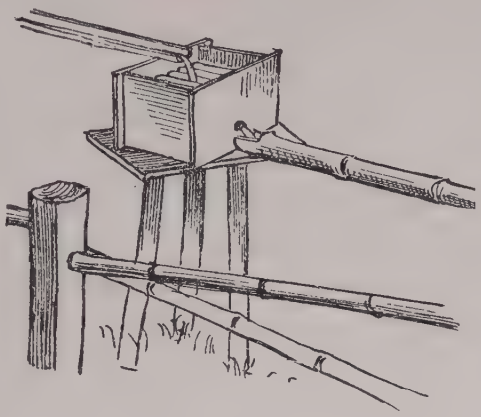


Fig. 668

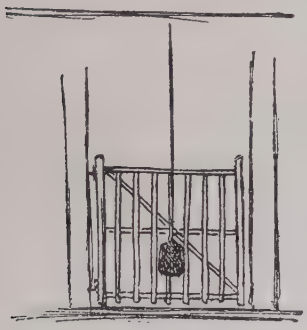


Fig. 669

I left the island in a small boat for the mainland on my way back to Hiroshima, the Doctor wishing to stay another night in Miyajima. In sailing along the coast one notices enormous walls built of stone running along for miles,

and seen from the water they appear like breakwaters. I was not prepared to see the extensive character or meaning of these structures till I rode along their crests on my way to Hiroshima. The walls, built nearly one hundred years ago, were made to reclaim the bottom of the sea for agricultural purposes, and the enormous tracts of land thus recovered are amazing. The coast is abrupt and mountainous, and the mountain ridges jut out of the ocean like promontories, leaving great bays between; the walls are built from the ends of these promontories and the enclosed areas are filled in and are under rich cultivation. On the crest of the wall is a broad road, and the ride was delightful. I reached Hiroshima at eight o'clock and naturally went to my room at once for my watch and money, which, as I have mentioned, I found intact.

Sick with a cold and a bilious attack, I lay on the floor all the next day while dealers in bric-à-brac brought old pottery to me to examine, and I made large additions to my collections. With no interpreter I got along very well, and should not hesitate to go through Japan alone. The Doctor arrived the next day, and he spent the entire time with the dealers, who came in swarms. When we were ready to go, we were told that the dealers had provided a large barge and wished to convey us to the steamer, five miles away. Imagine our astonishment when we got aboard to find that they had hired a fine pleasure barge with singing-girls, a fine lunch, and everything to make the sail pleasant. In this way these people wished to show their gratitude to us. A number of Japanese friends accompanied us in another boat, among them Mr. Amakusa,

whom I had met a few years before when examining dolmens near Osaka. Just before we started, an acquaintance of Mr. Tahara made a call, and I invited him to take a little brandy, the only thing I had to offer. He poured out much more than an ordinary drink, and I warned him that it was very strong and he could not carry it. He said, "Dai jo bu, yoroshii" (Able to resist, all right). It was interesting and amusing to see how rapidly he succumbed to the influence of the liquor. By the time we got aboard he was in a grotesque state of intoxication, and finally became so drunk that we had to land him on the banks of the river, where he laughed, sang, and declaimed till we were out of sight!

We soon reached the steamer, and bidding good-bye to our pleasant hosts, got aboard a little low thing evidently built for the most diminutive Japanese. The result was that we could hardly move about without breaking our backs or bumping our heads, and the Doctor repeatedly broke the third commandment during his back-breaking experiences.

We sailed at eleven o'clock at night, and all the next day and night, stopping now and then, and finally reached Kobe in the morning. I never endured more misery. It rained most of the time, and we were confined in a little room with a Japanese family, with another room connecting in which were eighteen more Japanese. They were all courteous and quiet. Had they been natives of any other country we should have suffered much more, if that were possible. We slept on the floor, for there were no beds or berths; the Japanese food was execrable, and I had not recovered from my illness at Hiroshima.

Arriving at Kobe we rushed to the English hotel for something to eat. For over two weeks we had lived on Japanese food, much of it most excellent, but no matter how good the food, it is the breakfast that makes us homesick, so we reveled in the English food with almost delirious joy.

I have done little but eat and write for a week

CHAPTER XXII

POTTERY-HUNTING IN AND ABOUT KYOTO

Our Inland Sea experiences have been remarkable and, with the exception of steamboating, perfect. We are now to start for a town in the Province of Kii, and then on to Nara and Kyoto, so my journal notes and sketches accumulate without a chance for writing up in orderly sequence. I have added a great stock of notes for my pottery journal which is sadly behindhand.

Within a month a violent outbreak has occurred in Korea and a number of Japanese have been massacred. I was in Kyoto when the news was received by the Japanese papers, and the excitement over the affair reminded me of the days following the outbreak of our Civil War. Osaka would raise three regiments of soldiers and contribute a million of dollars; Niigata, away up on the northwest coast, would raise half a regiment and give a hundred thousand dollars. I mention these details in order that the following incident may be fully appreciated. With the country aroused at the Korean *coup d'état* and Japanese troops forced to retreat to Chemulpo, I, on my way to Kyoto, sat in the train with two Koreans. I had rarely seen a Korean before, and the Japanese in the car had apparently never seen these people, from the way they watched them. They got out at Osaka, and I sacrificed my ticket and followed them. They had no guard, not even a policeman, nor was a guard necessary. Crowds flocked around

them, for their conspicuous white clothing, curious horsehair hats, shoes, everything, were as strange to the Japanese as to me. I followed them until I got tired, simply to discover, if possible, a hostile gesture or a jeering word. The Japanese were sensible enough to realize that these two men were innocent of the atrocities going on in their native country and they were treated with the usual courtesy. Naturally I recalled the way the Northerners were treated in the South during the war in our country, and again asked myself which people are the most civilized.

Fig. 670

While at Rokubei's pottery the old man, in showing me a water-jar he had thrown some years before, made a gesture new to me: he held his two fists against his nose, one in front of the other. I wondered what he meant by it, and was told that it indicated pride. A wise old character known as Tengu is represented in masks and pictures as a man with an inordinate length of nose, and to show wisdom or commendable pride the two fists are held as above described to indicate a long nose.

At Kobe I watched from my window a number of workmen driving piles. I have already described the process in the earlier pages of the journal. We have now learned the meaning

of their song. Figure 670 shows the men on the staging who lift the heavy log hammer. Two men below steady and direct the pile to be driven, and one of these sings a short chanty, while those on the staging above keep up a swinging sort of time by slightly swaying their bodies and partially lifting their hammer; then they join in the chorus, and when that is finished, three or four blows are given, when the man below starts the chanty again. The chanty consists in queries or encouraging words, as, "Why is this so hard?" "A few more blows will drive it down"; "It is almost down," etc. At this, several rapid blows may be given. The workmen above often laugh heartily at the funny words of the soloist, and all work in a happy, smiling sort of way. The men seem to accomplish a good deal of work during the day, but it is laughable to see them work so slowly and deliberately.

After a three days' stop at Kobe we went to Osaka, and from there started for Wakanoura, Province of Kii. I went ahead with Mr. Tahara and at every town ransacked the curio-shops for pottery. Our ride across the plains of Osaka to the mountains beyond, though monotonous, had many points of interest. The entire region was covered with big stacks of straw gathered about high poles in picturesque groups of four or five, of various heights, and each with its little spire, which was the end of the pole which forms the axis. Many of these stacks had gourd or squash vines trained upon them, and some of them had little huts built against them as shelters for the farmers. Figure 671 is a sketch of their appearance. At close intervals were single or double well-sweeps for the irrigation of the land. The weighted end consists of a

rough-hewn stone, disk-like in shape, with a hole in the centre, into which the end of the pole is wedged. There were thousands of these wells scattered over the vast plain and many of them were being worked. The extent to which irrigation is carried on probably has no parallel except in China, which I hope soon to see. There the well-sweep is two thousand years old.

A very ingenious water-wheel (fig. 672) is met with, which is worked by the current of a river. It is a Chinese device, and is

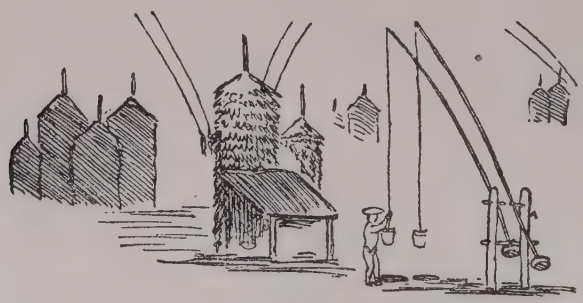


Fig. 671

rare about Tokyo and farther north, but not uncommon in the southern provinces. The wheel is eight or more feet in diameter, and attached to it are large bamboo tubes which are fastened obliquely to the side of the wheel at the periphery. As the wheel is turned by the current, the bamboo tubes are filled with water, and as these tubes are turned to the top of the wheel, the water pours out in a stream and is caught by a deep box trough running parallel to the diameter of the wheel. From this trough it runs into another trough, and from thence to the irrigating ditch. It is interesting to watch the methodical manner in which each bamboo in turn becomes filled with water, finally to spill it into the trough as it comes to the top

of the wheel. At times may be seen two or three wheels close together along the banks of the river, and large quantities of water are raised during the day to irrigate the rice-fields.

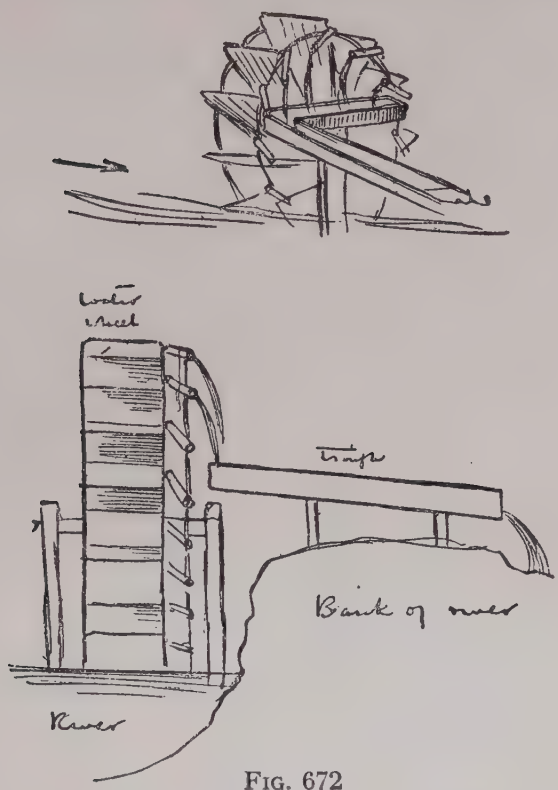


Fig. 672

At one place in Kii I saw a curious implement used for weeding in rice-fields. It consisted of a long box without a bottom; inside the box were two shafts running from side to side, these shafts being studded with wooden pins; long arms or handles ran up from the box; and the machine was pushed through the rows of the rice-fields. Figure 673 gives a fair idea of its

appearance. It was invented by a man in the village where we saw it used.

The pass through the mountain chain which separates Izumi from Kii was very delightful; such perfect roads and such fine stone bridges!

The scrupulous efforts made to protect the roads from mountain floods one observes at all times. Even the beds of brooks are paved like a street so that the torrents shall do no damage.

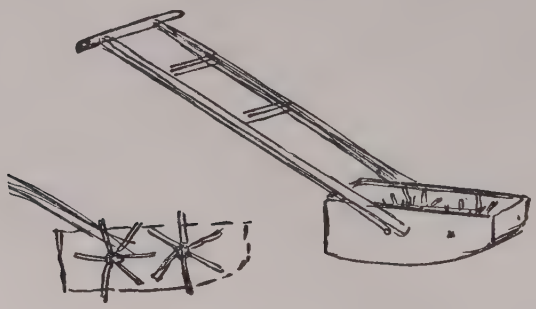


Fig. 673

Figure 674 gives a faint idea of the manner of protecting the abutments of a bridge and the brook-bed. A big dam was made below the bridge so as to check the too rapid flow of water. The bridge shown is one in the mountain pass as we left Isumi and entered the Province of Kii.

I noticed a curious way of treating the roof in Izumi. After the thin layer of shingles is put on, a layer of mud is added, and a thin layer of cotton-seed is hammered into the mud with large wooden mallets. The seed is the refuse after the oil has been pressed out, and being oily, it forms a waterproof coating until the mud has become hard and baked by the sun.

At one place on the road where we stopped, I saw the process

of manufacture of a curious kind of food one often sees in certain soups. It has a bright-yellowish color, is thin as paper, and has no definite flavor. The substance is made from soya beans by a curious and simple process. The beans are boiled in a large boiler till they are very soft; they are then ground in a mill to a fine paste, and mixed with water and colored by some stuff that is imported from abroad (fig. 675). This material is then put into a shallow trough divided by square partitions,

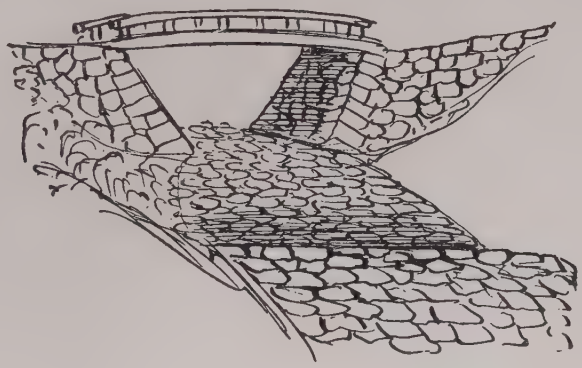


Fig. 674

beneath which is a charcoal fire which keeps the stuff gently boiling. The surface coagulates as it does on boiled milk, or on a cup of cocoa, and the film that forms is taken off very skillfully with slender bamboo sticks and hung up to dry (fig. 676). Other films form and are promptly removed by a girl who is kept busily at work.

As we entered the plains of Kii in the vicinity of Wakayama, the view was charming: long reaches of rice-fields, from which, at intervals, arose little clusters of farmhouses with black-tiled roofs, intermingled with brown thatch and white walls, and towering above them quaint-looking trees with deep,

dark foliage, all rising out of a perfectly level carpet of the brightest green which extends for miles. At a long distance the position of Wakayama could be detected by the castle which looms up on the horizon and forms a conspicuous feature in the landscape.

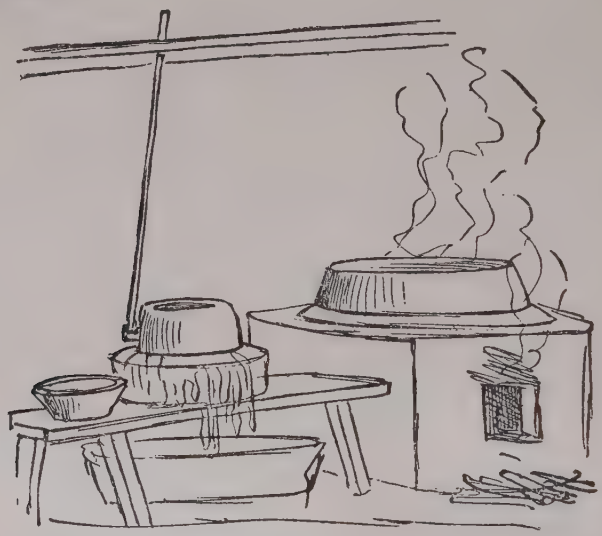


Fig. 675

As one goes from province to province one observes a change in many things. The variety of tiled roof has already been alluded to in this journal. It is interesting to notice the difference in ploughs. Figure 677 shows the type of plough used in Kii. It is similar to the plough used in Yamashiro, but is not so solidly made or so graceful.

We got to Wakayama at six o'clock in the evening. The city stands on a slight elevation, enfolded in the midst of great trees. It is a place of fifty thousand or sixty thousand inhabitants, yet simple and quiet. The people stared at us in

eager fashion as we rode through the town. The number of foreigners who visit a place may be estimated by the quantity and quality of the staring one is subjected to; so we judged that foreigners rarely visit Wakayama. We found a clean inn, and good it was to get something to eat and to go to bed. The next morning we started out in the usual quest for pottery and added many pieces; the next day was a repetition of the first.

Fig. 676

In the afternoon Mr. Tahara and I rode to the little fishing village of Wakanoura, the village being placed just back from the beach with beautiful mountains towering up at a distance. On the slopes of one mountain was a large temple illuminated by the rays of the setting sun. We crossed a little bridge on which was a crowd of men and boys who were catching dragon flies in sport. They had regular insect nets, and one man, in order to leave his hands free, had four dragon flies in his mouth, his lips holding the insects by the wings turned back. A boy had a number held between his fingers in the same way.

The boys tie strings between the thorax and the abdomen and play with them, the creatures flying and supporting several feet of light string. This is a boys' sport that one sees all over Japan.

There were many signs of past grandeur in the temples and roads. A decayed tori-i rises up in a tangle of bushes and grass, the sea water coming to its base (fig. 678); a quaint old stone bridge spans a wide creek with no trace of a road leading to it. An evident subsidence of the land has taken place in comparatively recent times and traces of man's work have been swallowed up by the waves. When we returned to Wakayama the moon had risen, the air was refreshingly cool, and the views were altogether delightful. The next day the Doctor went with us to the beach, where we had a grand swim.

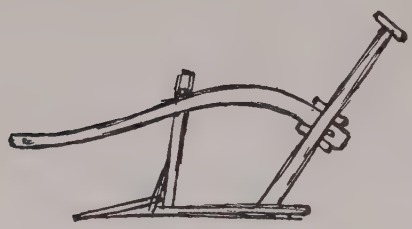


Fig. 677

I noticed the remarkably good looks of the older women, very sweet, motherly, and intelligent faces; indeed, I may say that in the many places I have visited in Japan I never saw so many fine and intelligent old ladies as here. The children were also very pretty, and there is an air of culture and refinement that impresses the visitor at once. It being a three days' festivity in honor of their ancestors, every child was prettily dressed, and at night they all carried bright-colored lanterns. The streets were filled with booths, and such an activity of shouting and merriment would have been almost distracting

if there had not been the utmost courtesy and politeness in all these demonstrations. We went to the fireworks one evening. These were given in a large enclosure made by straw mattings nearly twenty feet high. The pieces, though simple, were very beautiful, and the crowd emitted precisely the same sounds expressing surprise and wonder that one hears among our own people under similar circumstances.

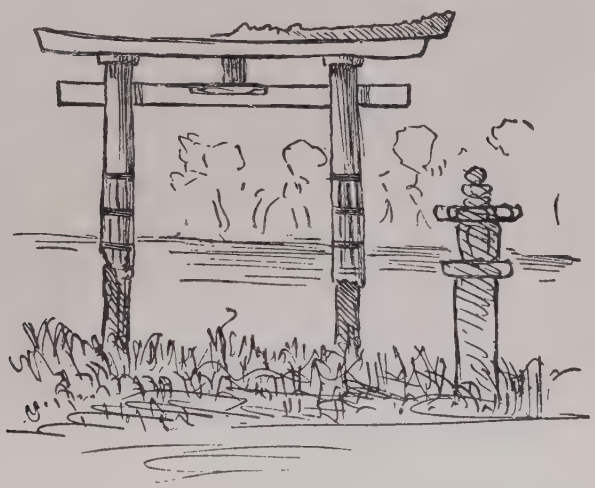


Fig. 678

At Wakanoura I observed fishermen boiling pine bark in order to tan their fish nets. I asked them why they did not tan their boat sails, and they said that the sails did not wear so well if tanned. Figure 679 represents the appearance of this simple tannery. The fishing boats pulled up on the beach were somewhat different from those of other parts of Japan. There is a marked difference in the boats of different provinces, though they are all remarkably dry boats and float like an egg-shell in heavy seas.

Wherever I go there is perceptible in the hum of the city streets certain noises that are rhythmical. You find that the Japanese workmen hum or sing at their work, and if the work is pounding, stirring with a stick or spoon, or any uniform movement, it is done with an accent and in rhythm. These noises may be a series of grunts, or an actual song. The gold-beaters and fish-choppers always beat and chop with a peculiar tempo. A curious preparation of raw fish has to be rubbed into a paste in a stone mortar. The mortar is on the ground, the pestle is a long pole, the man stands at his work, and he works with great vigor. The movements of stirring are accompanied with a peculiar whistling sound in perfect time to the stirring, which is interrupted by long and short stirs. The blacksmiths have the hammers of the helpers tuned differently, so that an agreeable series of sounds is made, and when four are pounding in rhythm it sounds like a chime of bells. It is a curious trait in their character to lighten the burden of their labors by some pleasant sound or rhythm.

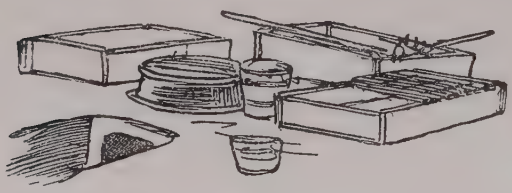


Fig. 679

In the country villages it is interesting to observe how unobtrusively the people call one another's attention to the approach of a foreigner. They seem to know of his approach a long time before he passes their door. Often children go ahead to tell their parents; mothers call their children's attention to the strange sight, but in doing this they never call out loud or point their fingers. In Tokyo, in Kyoto, and in other large

cities the sight of a foreigner is too common to attract attention, though even in remote parts of the great city of Tokyo, one attracts some notice, and countrymen in the city may be recognized by their interest in you.

Our visit to Wakayama was full of interest. We left the city August 31 for Nara, a two days' jinrikisha ride up a most beautiful valley. In all our travels in Japan we have never passed in and out of so many charming and picturesque places. Toward evening we reached Gojio, a town in the Province of Yamato. On the way up the river I saw a regular terrace formation, in appearance precisely like the terrace formation in the upper Connecticut River, but due to an entirely different cause.

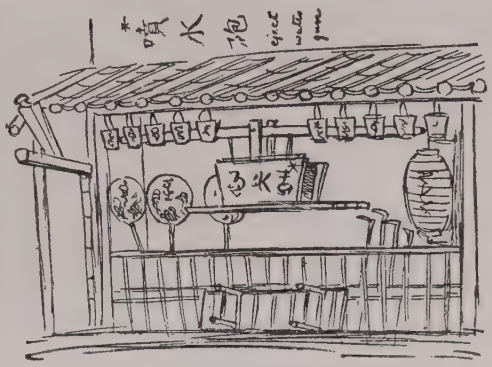


Fig. 680

In Gojio I saw a house in that stage of construction that shows how the ceiling of a room is supported. One sees that the thin rafters upon which the cedar boards rest are altogether too weak to support the boards, no matter how thin they may be; a long cleat is nailed on the upper side of these boards and a piece is nailed to that and to the rafters of the roof above. The space above the ceiling and under the roof, which forms our attic or garret, is never utilized in the Japanese house; it is a playground for rats only. In Gojio I made a sketch of an engine house (fig. 680), not unlike the sketch of

a similar house I made in Mororan, Yezo, four years ago. The engine hangs up under the roof and becomes dry and cracked, and when used at a fire it is amazing to see how the water squirts out of it in every direction till the wood becomes soaked.

In the town of Yagi, Yamato, I saw a number of thatched roofs (fig. 681), showing a series of laps of thatch resembling in that feature the thatched roofs of Ainu huts in Yezo, but the successive edges were not so prominent as in the Ainu roof.

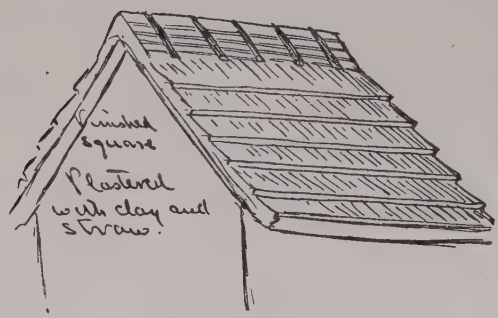


FIG. 681

We left Gojio in the morning, and after a delightful all-day ride reached Nara at six o'clock. After getting into the Province of Yamato I noticed at times in the road fragments of the blue, unglazed, lathe-turned pottery, dating back a thousand years and more. This pottery is regarded as Korean by antiquarians, but the abundance of it scattered over the ground leads me to regard it as Japanese, though the art of making it was originally introduced by Korean potters. It is associated with tombs and caves and is mortuary. As we approached Nara we passed the tomb of the first Emperor, Jimmu Tenno. It is a large, square, flat-topped mound of slight elevation, surrounded by a plain, substantial stone fence. It was intensely hot as we turned off the main road to examine it, and I was too tired to make any sketches. I man-

aged to get a hasty sketch of the padlock which fastens the gate of the inner sanctuary, a big, heavy, brass device that can be unlocked only on an order from the Emperor (fig. 682).

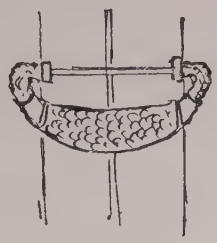


Fig. 682

At several places along the coast at the entrance to a path leading back to some farmhouse was seen a curious device in the shape of a tall slender stick, on the top of which, inverted, was a large mushroom (fig. 683). The stem was wrapped in paper and the stick below had a roll of paper about it. We were told that it indicated a death in the family. It was evidently peculiar to Yamato, as I never saw it elsewhere. Nothing was learned as to the significance of it.

Fig. 683

The various temples were very interesting. At one place we saw a remarkable religious dance by four girls, peculiarly dressed, with three priests who sang an accompaniment.

In Nara the deer come down from the woods and roam through the streets, and I tried to feed them out of my hand. They were not so tame as the deer of Miyajima; at least, I was not able to get within ten feet of them, much to the disgust of an old woman from whom I had bought a few rice-balls. She coaxed in vain for the deer to approach me. The Japanese have no difficulty in feeding them, but the deer recognize a foreigner at once.

I had the same two jinrikisha men with whom I had left

Wakayama and they were great runners. They made the distance of twenty-nine miles with only two stops of short duration, running all the time. At one place where we stopped a tall wooden screen which was leaning against the building blew over, and the man in the shafts tried to save it from falling on the jinrikisha, and in doing so lost his balance, and over the jinrikisha went backward, tumbling me out with my valise and a box of pottery. As I never hurt myself in such tumbles, I picked myself up all right, but it was amusing to hear the two men scolding each other till they found I was really laughing at the mishap, when they began the most hearty and satisfactory laugh I had heard for a long time, and for miles on the road I would give a chuckle just to hear them laugh again.

I came up from Kobe on the steamer which conveyed a number of Korean ambassadors to Tokyo. They were very pleasant, genial men, and I quickly got acquainted with them. I made a few sketches of them on the sly. As a few of them spoke Japanese, I managed to ask them a great many questions and to understand their answers. Two of them wore large goggles with colored glasses, as I supposed. They allowed me to examine them, and to my amazement I found that they were made of clear smoky-quartz crystals mounted in tortoise-shell frames. I inquired about their method of releasing the arrow in archery and found it to be like the Japanese method, only an arm-guard is worn, and they do not allow the bow and string to revolve. The Korean pipe has a much larger bowl than the Japanese pipe. The Government officials wear a coat slit up the sides, and up the back to the shoulders, and like all Koreans they dress in white. Figure 684 is a sketch of one

of the Koreans with his coat removed. The breeches are very baggy, and separate at the knee. Below, their legs are stuffed into the stockings, which are heavily wadded with cotton so that they bulge over the edge of the shoe. In summer this wadded stuff must be intolerable. The jacket is short with two pockets in front, and is made of a light yellow nankeen-like cloth. There is no shirt. On the arms are sleeves reaching from the wrist to the elbow. These are woven in white horse-hair, and are intended to keep the cloth sleeves away from the skin. Around the head in its longest diameter is worn a band of black horsehair, finely woven, which is drawn so tightly that when taken off a deep line is seen on the forehead. When not wearing this band, they roll it up very carefully. It is perhaps two feet long, two and a half inches wide, with strings at the ends, and little black rings through which the strings pass in fastening it on the head. One form of official hat is in two parts: the first part a simple, bag-like form made of horse-hair, which has dangling inside, from the top, a tortoise-shell pin which is stuck into the stubby queue on top of the head to keep the hat on. Outside of this goes an affair in the form of two square boxes, one above the other, both flaring as in figure 685; this is also made of horsehair. Another form of hat, and one most commonly seen, judging from pictures of Koreans, is a tall hat, the crown somewhat tapering and the rim very wide and slightly arching; this is made of the finest fibres of bamboo and is wonderfully woven. The hat is an expensive one,

Fig. 684

costing fifteen or twenty dollars. Figure 686 shows it on the head of an elderly man.

In Kyoto with Mr. Tahara for a few days we devoted our entire time to visiting the famous potters, from whom I got a mass of notes regarding the present and past generations of the families, impressions of their various stamps, and other information. Rokubei seemed pleased to see me again, and immediately brought the cups I had made on a former visit, which he had baked and glazed. On the bottom of the pieces I had marked "M," and had drawn a shell inside, and Rokubei had marked in Chinese character on the side, "Rokubei assisted." I gave him one of them, and he was polite enough to seem pleased. I secured from him a complete set of tools used in pottery-making. Figure 687 shows Rokubei's pottery from the yard.

Fig. 685

From Rokubei's we went to the Raku pottery Kichizayemon. I found a modest-appearing house. The old potter representing the twelfth generation of the family, who have made for three hundred years a peculiar kind of pottery known as Raku, invited us in, and we introduced ourselves as coming from Rokubei. He kindly answered all my questions, and showed me a complete set of Raku bowls representing the work of all the generations. I made outlines and rubbings of the marks. He then showed us the working place. It seems that only the immediate members of the family are engaged in the work,

Fig. 686

no outsider having anything to do with it. The oven is very small, and the one in which the famous bowls are baked is only large enough to hold one bowl. The bowls are not made on a lathe, but are shaped by the hand and shaved on the sides. He gave us powdered tea and cake, and while we were drinking, a cunning little child came to me to be hugged.

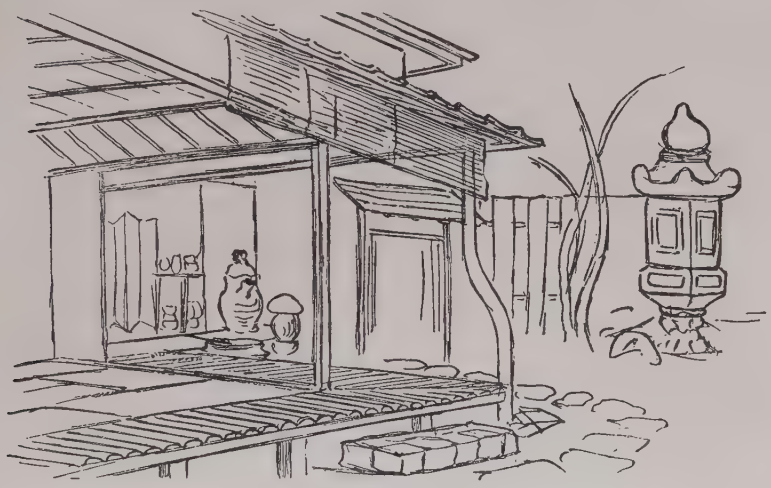


Fig. 687

In his room he had a letter mounted as a kakemono. This letter was from Kato Kiyomasa, a famous general in the time of Taiko, who had the reputation of having killed a tiger with a blow of his fist. The letter was addressed to the first generation of the Raku asking him to make some tea-bowls. The letter had been sacredly preserved through all the generations of the family. He also showed me a piece of pottery made by the first Raku. It represented a mythological lion, and had also come down as a precious heirloom of the founder of the family. It seems that when Nobunaga was defeated and

his palace burned to the ground, the first Raku saved this piece from the ruins. I made a hasty sketch of the old man and the Nobunaga no Shishi as he was reverently telling me the story (fig. 688).

The next day we visited Yeiraku, one of the famous potters of Japan. Here we were as cordially welcomed as at the other potteries. Powdered tea and cake were offered us, and Yeiraku listened with great attention to my inquiries, and then gave me a complete history of the family, of which he represents the thirteenth generation. While Mr. Tahara was recording his conversation, which will appear in my pottery journal, I made a sketch of the room in which we were. The marvelous square oak panels in the ceiling were the most beautiful I had ever seen. At Yeiraku's I noticed an interesting treatment of wall plaster. Directly after its application to the wall iron filings are blown upon it, and these particles oxidizing, give a warm, brown tinge.

Fig. 688

From Yeiraku's we went to another Kiyomizu potter, Zoroku, and there for the first time I discovered where all the counterfeit Ninsei, Asahi, and other famous potteries had been made. The curious feature about the matter was that

the potter and his brother did not seem at all ashamed at the counterfeiting they were doing. They showed me specimens of their father's work, among which were bowls with the Ninsei mark!

After Zoroku we visited Kitei, who represents the fourth generation of his family, and here we were very kindly received and every facility was given us to examine his work.[1] His furnace had the same general aspect of all the others; a series of lateral ovens built on the side of a hill. Potters often bake in one another's ovens. Zoroku bakes all his pottery in Kitei's oven and Yeiraku bakes in an oven some distance from his house.

I again visited Bairei's drawing-school and house, and for two hours enjoyed watching the deft way in which the pupils work. It seemed an awkward position to be down on the floor with knees bent under the body, yet Bairei told me that the pupils would hold this position for hours apparently without fatigue. The work consists in copying from other drawings. Much of the preliminary work is done by tracing and in every case a brush is used. The paper is not thin enough to see the drawing distinctly, and so it is lifted up at almost every touch of the brush. The paper is held down by a paper-weight at the head of the sheet. In beginning, the brush is filled with the paint, a proper point is made by trying the brush on another sheet, and if there is too much paint it is sucked out of the brush at the base, so as not to spoil the point.

At the temple of Nanzenji, at Kyoto, the priests showed me a small collection of pottery, none of which appeared remark-

Kitei's garden is figured in *Japanese Homes*, p. 255.

able. A tea-room, built by a famous *chajin*, Kobori Enshiu, two hundred and fifty years ago, was a good illustration of the simplicity of design in accordance with the plainness and austerity of the tea-ceremony cult.

At Osaka the Doctor had discovered an interesting temple pond in which were hundreds of turtles of different sizes. Near a little stone bridge which spans the pond is a booth where one can buy hollow balls, in the form of lanterns, made of rice-flour of which the turtles are very fond. When these balls are thrown into the water, it is curious to see the turtles race for one, snapping at it again and again, only to throw it farther away, and so they chase it till it gets water-soaked, or until it is driven against the stone wall bordering the pond, where it is quickly broken and devoured (fig. 689). The lanterns are colored red or white, and as the turtles stream across the pond in pursuit they form a sort of procession with the lanterns at the head of it. These objects are sold at the rate of five for a cent, and one may spend some time feeding the turtles. The way they snap reminds one of the game of biting at an apple suspended by a cord from the ceiling.

Fig. 689

While in Osaka a Japanese invited me to go with him to the rice exchange, as I would see a very curious sight. As I approached the building I heard a curious babel of shouts which reminded me of the corn exchange in Chicago. As we entered the building there was the same turbulent crowd of brokers and speculators gesticulating, flinging up their hands, and

shouting at the top of their voices. In amazement I asked of my Japanese when the custom was imported, and he in turn was amazed when I told him that just such gatherings might

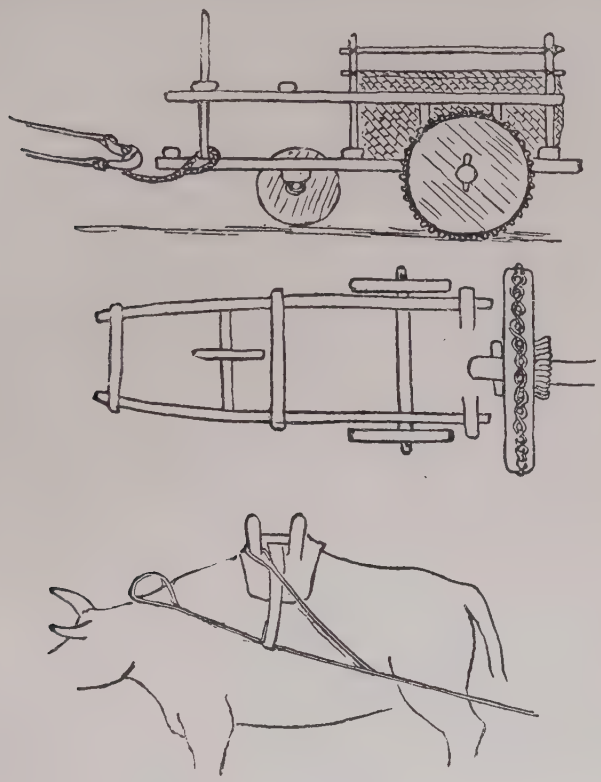


Fig. 690

be seen in Chicago, New York, and Boston, and other large cities. These men were rice brokers, and identical conditions and demands had resulted in identical behavior.

The dirt carts of Kobe are odd-looking, three-wheeled vehicles, with a little centre wheel, far in front, consisting of a solid block of wood, and the two main wheels of wood solid

throughout. The axle is fixed, the wheels turning on it. The tire consists of hard wooden pegs partially driven in, and between these projecting portions a straw rope is wound about the pegs, for what purpose I did not learn, unless to prevent the pegs from sinking far into the roadway. Figure 690 represents a side view and plan. The cart is drawn by a bull.

CHAPTER XXIII

CUSTOMS AND SUPERSTITIONS

MIYAOKA tells me that in writing a letter no punctuation is used. As the letter is written in Chinese characters, it is considered impolite to punctuate, for that would assume that your friend could not read Chinese properly. In print, the sentences are always marked by a circle, or a figure like a capital L to show the end of a paragraph. The circle is used in Chinese classics, while the L is used in other text.

In addressing a letter in former times the name of the sender was written directly under the name of the receiver; at the present time the name of the sender is written on the other side of the letter. Some old-fashioned people will not receive a letter if the sender's name is not given. In past times letters written to women were directed simply to the master of the house. Furthermore, a letter directed to the master of the house may be opened and read by his wife, his son, or his intimate friend, unless it is marked on the outside, "Please open it yourself," the equivalent of "Personal." Before envelopes were adopted a sheet of paper as a wrapper was folded in a peculiar way. The outlines from 1 to 15, in figure 691, show the various stages of this folding. The sheet is first folded as in 1, 2, 3, and then unfolded as in 7 and 8; the letter is then put in and the envelope sheet is again folded, but in a different way, the creases already made being a guide.

In the province of Yamato I observed very effective meth-

ods of arranging ornamental tiles to form borders on the roofs of porches and gateways, methods from which our architects might get suggestions. In Yamato greater use is made of tiles for ornamental purposes than in other provinces I have visited.

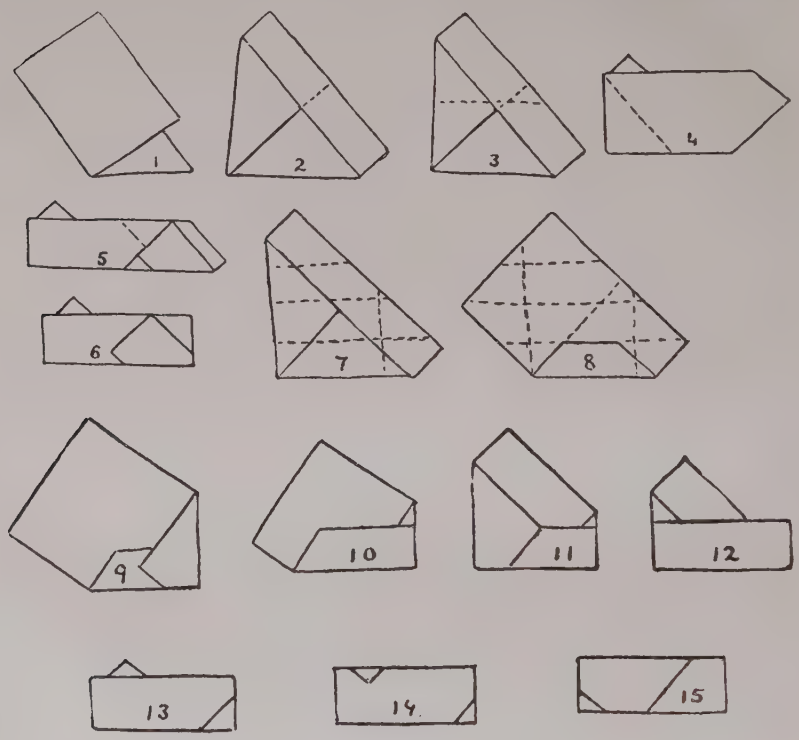


Fig. 691

The ornamental flat tile does not seem to be used to any extent. A few are seen only in garden walks; at Rokubei's I noticed them in the garden.

In our country we have bad spellers among those who are otherwise scholarly. In Japan the same condition is found, and there are scholars who cannot write the Chinese charac-

ters correctly. It is enough to paralyze the brain of an ordinary man to think of the monumental load a Japanese has to carry, to remember the thousands of characters as well as the Chinese name of the character and the equivalent in Japanese. Not only this, but each character has its written script, its seal form, as well as the square form, as in our alphabet where we have the capital B, for example, the written script, the old English script, and any fanciful monogram. The foreign student of Japanese history is perplexed at the different names that one historical character may have. This feature has often perplexed me in the names of famous potters and artists. All samurai have first a clan name, which is the name of the ancient family from which they have descended, or to which they belonged in feudal times. This name is called the *sei*. They have also the family name, which is called the *uji*, and a name which is analogous to our Christian name, called the *tsusho*. A scholastic name is also given them, which is called the *go*, and even another scholastic name known as *azana*. Still another name is used for drafts, petitions, deeds, contracts, etc., called the *imina*.[1] And finally, not to leave them in peace even then, they have a name given by the priest after death, and this name is known as the *kaimio*. As an illustration, the famous historian, Rai Sanyo,[2] who died fifty years ago had the following names: —

Sei, clan name, Minamoto.

Uji, family name, Rai.

[1] Hepburn's Dictionary says this name is used after the age of fifteen.

[2] This name is included with the names of other distinguished scholars on the Boston Public Library Building.

Tsusho, equivalent to Christian name, Kyutaro.

Go, scholastic name, Sanyo.

Azana, additional scholastic name, Shisei.

Imina, legal name for contracts, etc., Jio.

Kaimio, name after death, not known by my informant.[1]

At Miss Nagai's house this afternoon, and made a sketch of the end of the thatched roof.[2] Her brother, Mr. Masuda, told me that the material for the thatch was a peculiar kind of reed which costs more and lasts much longer than the ordinary straw used for thatching. Such roofs are very heavy and absolutely water-tight. The Japanese roof, thatched or tiled, is so unlike anything we have in our domestic architecture that one is tempted to sketch it all the time. The roofs vary greatly and each province has its peculiar types. It seems a pity that our architects do not break away from the stiff, straight lines of our ridge-pole and eaves. Along the St. Lawrence River the French-Canadian houses are built with the eaves slightly curved upward which gives a certain grace to their appearance.

My friend Takenaka, at my request, collected during his summer vacation records of a number of superstitions and customs among the lower classes; these he gives me from a notebook from time to time when I am not too tired to write. The Japanese have no general name for superstition, but a superstitious person is called a *gohei-katsugi;* a curiously cut paper which the Shinto priests carry is called a *gohei*, and

[1] I have material of this nature to fill a thousand pages, and find but little time for recording. My pottery journal exceeds this journal already, and I shall have enough material to make an interesting book on Japanese pottery.

[2] See *Japanese Homes*, fig. 83.

katsugi means to carry. One who carries such a thing is regarded as superstitious.

When a person dies it is customary for the friends of the deceased to bring presents to the family, generally of money in an envelope, and the strings of this envelope must be black and white, and not red and white, as red is an emblem of happiness, the red string, or cord, always being seen on infants' clothing. The knot must be tied in a square knot and not in a bow or other form of knot. The envelope is usually marked "for flowers," or "for *senko*," which is an incense stick. The money may, however, be used for anything. Food and candy may be brought in a lacquer box, the recipient taking them out and putting them on a plate and then depositing in the lacquer box a single sheet of paper folded once or twice, or in lieu of paper two thin sheets of wood. These offerings are made while the corpse is still in the house, or directly after the funeral. If there is great grief in the house, or the person has just died, no paper is put into the box, which is carefully cleaned by the recipient; on other occasions it is not cleaned.

The Buddhist priest comes to pray every seventh day for forty-nine days. After the funeral the master or mistress gives each visitor five cakes made of wheat, and after thirty-five days nine cakes are sent to the house of each visitor. Mention has been made of the color red as a sign of happiness; rice colored red is served on festival days. The god of poverty does not like red rice, or black *tofu*, and this food is therefore put on the god shelf, or in the tokonoma, to drive away this evil spirit.

Each year has a special name. This (1882) is the year of the horse. Any one born in the year of the ox must not eat eel after he is fifteen years old. A child born when the father is forty-one years old is not considered a good child; that is, the child will be disobedient. In such an event the parent goes to a friend with the child and tells him he is going to put the child away and will the friend kindly take it; in the mean time the child is left in the street. The friend takes it and carries it home. The next day the parent brings a present and says, "I have no child; will you give me your child?" This is done, the same child, however, being given back again; and this ridiculous performance is supposed to free the child from the evil destiny in store. The present made on the occasion usually consists of *katsubushi* (fish dried as hard as wood), and this present has not attached to it the usual noshi. All presents of fish are made without the noshi (a paper folded in a peculiar way with a dried bit of *Haliotis* meat enclosed). In regard to eating eel, it is supposed that the child over fifteen who eats it will not be intelligent or rise in life.

On the 15th of August (old calendar) a man must remain where he is until the 13th of September. If urgent business requires, he may go away, but must return to the place on the 13th of September. On these days cake must be offered to the moon. On the 15th of every month a man must contemplate the moon and make offerings of flowers and cake. On days in which the figure 1 occurs, as on the 1st, 11th, 21st, trees must not be cut down; on days in which the figure 2 occurs, as 2d, 12th, 22d, the power of fire is very strong, so for a counter-irritant in rheumatism *mogusa* is used, as its heat is more

powerful; on days in which the figure 3 occurs, the ground of a garden must not be dug; on days in which the number 4 appears, bamboo must not be cut down; on days with number 5, food — such as rice, peas, or any kind of seed — must not be carried home, nor must rice be bought on these days; on days containing the figure 6, wells must not be cleaned out; on days with 7, strangers must not be invited to the house; on days with 8, marriage must not be talked about, else the parties will afterwards separate; on days with 9 it is considered good luck to eat eggplant. The 9th of September is deemed especially good, as September is also the ninth month, and wine bottles in the shape of an eggplant are used on this day. On days with the 10, as 10th, 20th, 30th, the latrine must not be cleaned. The penalty for all these offenses is unhappiness or bad luck.

In serving daikon, a kind of radish, two pieces are always put upon the plate, one piece is called *hitokiri*, meaning one piece; it also means "man cut"; three pieces is called *mikire*, and also means "body cut." Eggplants and other vegetables, except daikon, must be cut longitudinally and not transversely, because cutting transversely seems cruel.

In presenting cake the cake must rest on a folded sheet of paper, as numbers divided by two are considered lucky; when mochi cakes are given they must be presented in numbers of 2, 4, 6, 8, etc.

Sprinkling salt is considered purifying, and the accidental spilling of salt is regarded as good luck. Returning from a funeral, salt is sprinkled on the person by a servant.

In sleeping the head is turned to the south as the proper

thing; when a person is dangerously sick, or dead, the head must point to the north. When buried in a sitting position the body may face in any direction.

When the lobe of the ear is large, it is a sign of a happy disposition.

If the second toe is longer than the first toe, it is a sign that you are to occupy a higher position than your father; a long tongue or arm is the sign of a thief.

Left-handed persons are caused by the mother, when first dressing the baby, putting the left hand and arm through the kimono first.

If you sneeze once, it is a sign that some one is praising you; if twice, that you are loved by a woman; if three times, that people are talking about you, in praise, or otherwise; if four times, that you have taken cold. In the Province of Bizen one sneeze is a sign that you are disliked; two sneezes, that you are loved; three and four, that you have taken cold.

If the left ear itches, a man will hear good news; if the right ear, the news will be bad; with women the signs are reversed.

If an incrustation gathers on the lamp-wick, it is a sign that somebody is coming. The shallow plate holding the oil and wick is held by another plate, and if the incrustation can be got into the lower plate, it is a sign that the person coming is going to bring a present.[1]

If a crow caws on a house-top, it is a sign that somebody is dead within the house.

[1] A similar superstition is found in America and Great Britain, and probably on the Continent.

The finger nails must not be cut at night, as it is a sign that one is going crazy.

If children spill rice on the dress, or mats, they must eat it; otherwise they may become blind.

A man about to commit hara-kiri is helped to rice, using the cover of the box as a tray and not in the usual way.

If one's head itches, it is a sign of being happy; if dandruff falls, it is a sign of intelligence.

If it thunders a little in summer, it is a sign of many dangerous insects in the rice-field.

When a person is getting poor and unfortunate, the expression is used, "Anoshito no uchi wa hidari mai ni naru"; that is, "The man of the house folds his kimono to the left," which is considered unlucky. A corpse is dressed with the kimono folded to the left.

In order to keep sickness away from the house, particularly smallpox, the character for horse, painted three times on paper and stuck over the door, is considered very efficacious. An ink impression of the hand made on paper and displayed over the door will also answer the purpose.

At Chusenji I noticed hanging over the fireplace four fœtal deer: these were dried and discolored by smoke, and were supposed to be efficacious for women in sickness following childbirth.

If you find a comb in the street, before picking it up you must step toward it with your left foot; otherwise you will go through the world whining and crying.

A man must not marry a girl four years older or four years younger than himself; otherwise domestic trouble will arise.

Any other number of years older or younger makes no difference.

In mixing mustard you must stir it with an angry face, and this will make the mustard strong and stinging; if you smile during the operation the mustard will be mild.

One who prays to a certain god (Miyoken) must refrain from eating eight kinds of food; otherwise the god will not answer his prayers. These foods are eel, turtle, catfish, carp, wild duck, goose, onions, and another vegetable of a similar nature.

The ages of 3, 7, 19, 25, 42, 52, and 53 are especially bad years for a man; and for women the ages of 16, 25, 33, 56, and 57 are bad; as a general rule, too, years ending in the numbers 7 and 9 are considered bad.

One year after the death of a person the family meet for a solemn ceremony; also in the 3d year, the 7th, 13th, 17th, 25th, 33d, 100th, and after this every fifty years.

The crow sings in the early morning *ka! ka!* which means "wife"; hence the wife must get up before the husband

At a funeral visitors have their names recorded on a sheet of paper. The brush used for this purpose must be pushed through the sheath the wrong way; hence, doing this act at any other time is bad luck. When the body is carried out of the house, the men performing this function do not remove their clogs as they enter or leave; hence, if one is seen trying on his new clogs on the mat, his friend will say, "Please do not do it; it is a bad sign."

If tea-leaves float vertically in a cup, it is a sign that good fortune will come or that good news will be received. It is customary for dancing-girls to take these leaves and put them in

the left sleeve, accompanying the act with a sipping sound like the chirp of a mouse to insure the good omen.

A string tied round the wrist and ankle is supposed to prevent one from taking cold.

If a weasel crosses the road in front of a superstitious man, he immediately turns back and gives up the object of his journey; or if it is of great importance he must take another road.

If two funerals meet, it is a sign of good luck for both; if one overtakes another, it is a sign of bad luck.

If the cord by which the clog is held to the foot breaks behind, it is considered lucky; if it breaks in front, it is bad luck.

There is a belief that the crane in its flight across the seas from Korea carries in its feet a certain plant, so that when the bird alights on the water it uses the plant as a float.

The dragon is supposed to go heavenward in a water spout, and it was believed that if one got even a glimpse of its leg or foot he would become a great man.

The Japanese have many curious superstitions about the fox. People who are insane are believed to be possessed by the fox, the spirit of which gets into the body by way of the finger nail; that is, the spirit is supposed to pass in under the finger nail and this makes them act as they do. The Government in past times made provision for the maintenance of the insane, the family having to look after them; when violent they were kept in cages. Among the lower classes the belief in the fox has full sway, and stories are told of men who have fed foxes becoming rich through good luck. It is believed that if one keeps young foxes in a cage and feeds them properly, he will become prosperous.

Since foreigners have brought science among the people these superstitions are rapidly passing away.

I asked Takenaka what men did after retirement. He said that, generally speaking, a man in comfortable circumstances will retire from business when he is sixty years old. He entrusts all his business duties to his son, lives in retirement, and usually has some hobby of collecting, such as rare plants and ferns, pottery, or stone implements, etc. He gets up at five o'clock in the summer, six o'clock in the winter; fire is built in the hibachi to heat water in an iron kettle ready for tea, which is made strong; he has *yokan*, a kind of jelly, and miso soup made of fermented bean; he composes a Japanese poem; he calls on an old friend or is called upon at nine o'clock; he plays the game of go all day. If he is a saké drinker, he will begin to drink at nine o'clock and keep it up until he goes to bed. During the day he may take a long walk to some park or other beautiful feature in the country.

Takenaka has been informed by the Chief of the Sanitary Bureau that during the Tokugawa Shogunate the drinking of saké was much more common than at present. At that time saké was always offered to a friend when calling, and it was considered an offense to refuse it. Now tea is offered instead, and if saké is offered, one may drink it or not, as he pleases, without offense. At that time one cup was used in a convivial company and the cup had to be emptied when passing. Now each has his own saké cup and can regulate his desires without restraint. Saké drinkers are not fond of sweet things such as cake and candy.

The word for interesting or curious is *omoshiroi*, which lit-

erally means "white face," coming down from olden times when a white face was a curious sight. Nowadays the comic papers use the word *omokuroi* for "interesting," the word meaning "black face."

Japanese society is now officially divided into upper, middle, and lower classes. Japanese now address jinrikisha men and other laborers in more gentle fashion than formerly.

Professor Toyama informed me the other day that he and Professor Yatabe and another friend had been for some time engaged in translating the works of Shakespeare and other authors. These are published and eagerly read by the Japanese. Thus far they have already translated the following: Hamlet's soliloquy; Cardinal Wolsey's soliloquy; Henry the Fourth's soliloquy; Gray's "Elegy"; Longfellow's "Psalm of Life"; Tennyson's "Charge of the Light Brigade"; and they are at work on others. The Japanese have in the past translated many books from the English, French, and German; indeed, when the Dutch first went to Nagasaki, in the last years of the sixteenth century, the Japanese scholars, with the most painful efforts, learned Dutch in order to translate Dutch books on history, medicine, anatomy, and other subjects. The character of some of the books already translated is interesting. Professor Toyama gave me a list from memory of some of these translations from the English: Darwin's "Descent of Man," and "Origin of Species"; Huxley's "Man's Place in Nature"; Spencer's "Education" (of which thousands were sold); Montesquieu's "Spirit of Law"; Rousseau's "Social Contract"; Mill's "On Liberty," "Three Essays on Religion," and "Utilitarianism"; Bentham's

"Legislation"; Lieber's "Civil Liberty and Self-Government"; Spencer's "Social Statics," "Principles of Sociology," "Representative Government," and "Legislation"; Paine's "Age of Reason," and Burke's "Old Whig and the New"; of this last book over ten thousand copies have already been sold.

In translating I have often observed that the Japanese instantly recognize a Chinese character upside down, but in reading an obscure mark on pottery they turn the character right side up in preference.

CHAPTER XXIV

THE CAVES OF KABUTOYAMA

August 6. In the afternoon Dr. Bigelow and I, accompanied by Mr. Takenaka as interpreter, started from Tokyo for Kabutoyama, some forty or fifty miles, to visit Mr. Negishi and to inspect certain caves near where he lived. We spent the night at the little village of Shirako. Our rooms looked out on a quaint little garden with a veritable waterfall, whose music lulled us to sleep. In the evening the two girls who had waited upon us at supper came in and played games with us. Such a good-natured, jolly, laughing set of servants cannot be found elsewhere in the world. They are ready to entertain guests with their wit and fun, and yet never for a moment presume upon your familiarity. The next morning we were off at nine, and had one of the most delightful rides we have had in Japan. The day was cool, the sun shaded by clouds, which did not threaten rain, however. We reached Kawagoe at noon, and had dinner at the house of an uncle of Takenaka, who had a hardware shop on the main business street, and we passed through the little shop to pleasant rooms behind with the customary garden. The family were very attentive to us, and were for the first time entertaining foreigners. After hearty good-byes we were off for Kabutoyama.

We had had from Tokyo two men to a jinrikisha and that makes a great difference in the speed of traveling and in the delight of it too. Some portions of the road were still muddy

from the recent rains, and in one place we crossed a broad river where evidences of the recent flood were seen fifteen to twenty feet above its present level. Houses in the vicinity of the ferry had been submerged to their ridge-poles. When we got within half a mile of Mr. Negishi's estate, we were met by a gentleman who politely informed us that Mr. Negishi was expecting us. As we got nearer the house, three other gentlemen and Mr. Negishi's only boy were in the road awaiting us. We immediately alighted from our jinrikishas and exchanged the most formal bows with them, and they hurried after us as we rode rapidly along. Approaching the gateway of the house, Mr. Negishi, with his family and a number of servants, stood bowing and giving us a delightful and hospitable welcome. We were conducted at once across a spacious courtyard to a suite of rooms in a house by itself. Such perfect cleanliness, everything sweet; the courtyard so immaculate that the indentations of our heels in the smooth, hard earth disturbed us. Dinner was soon served, and the Doctor and I agreed that it was the best dinner we had had in Japan; most delicious soups, and refreshing raw fish, of which the Doctor has become very fond. We learned afterwards that Mr. Negishi had sent fifteen miles for a famous cook. It was late before we arose from the floor, and our beds were already made up with silk *futons* in great, high-studded rooms with rare carvings over the screens, and all in perfect taste. The guest-house we occupied formed a part of an irregular group of buildings which enclosed the large courtyard. It was a separate building, and like the others was nearly three hundred years old. The thatch on the roof is made of a special kind of rush,

quite expensive and said to last fifty years or more. The ridge-pole of wood and other portions were painted black, and the whole structure was very neatly and elaborately made.[1]

The next morning I was up before the others and made many sketches about the premises. The great courtyard surrounded by various buildings is typical of the residences of the wealthy farmer class, who, though not samurai, stand above the ordinary farmer class. After breakfast we examined the large collection of pottery Mr. Negishi had collected in the neighborhood, dating back twelve hundred years or more. There were two types, a light-reddish, soft pottery and the hard, bluish-gray pottery so commonly found in ancient graves. I never before dreamed of the existence of such tranquil, charming people. Refinement and culture were shown in their every word and act; no affectation, no unnatural restraint, attentions bestowed with ease and sympathy. Mr. Negishi's mother, an old lady of eighty, was interested in having me sit beside her, and through an interpreter asked me many questions, all very intelligent. Her interesting queries were such as a refined and cultivated lady at home might ask a Japanese. A foreigner had never been in the house before, and the sight of one was a rare event in this out-of-the-way village. It was a hot day, and whenever I sat down the two daughters would fan me, and their shy and half-frightened manner was curious to witness. It is a delightful custom, however.

Just before we bade good-bye to our charming hosts, and while the jinrikisha men were waiting, Mr. Negishi crossed

[1] The main house, kitchen, and interior are carefully drawn in *Japanese Homes*.

the courtyard to a little room opposite, and I could see him busily engaged in writing. I supposed he was writing a message he wanted us to carry to Tokyo. To my surprise it was a letter to me and it was presented to me on my saying good-bye. The act represented an old custom of Japan and one that we might adopt. Here is a translation of the letter: —

KABUTOYAMA, MUSASHI, JAPAN,
August 8, 12th *year of Meiji.*

DEAR SIR: —

It was a long time ago that I began to hear your name on the island of Nippon in the eastern ocean, but I did not expect to have you come and examine the caves which are situated between Osato-gori and Yokomi-gori, in the Province of Musashi, and that I should have the honor to receive you at my cottage, which was built three hundred years ago, and in which I had the pleasure of showing you my collection of old pottery and stone implements. Now, if we should turn our eyes to the condition of our country thirty years ago, what would we see? We would see that the people both in our island and across the seas could not avoid doubting and suspecting each other, but at present we have reached such a degree of friendship that I have had the privilege of spending these days with you. For this reason I have permitted my brush to creep on, and in view of the deep friendship existing between our two countries I wish you long and continued prosperity,

With respect, your friend,

T. NEGISHI.

We started for the caves — a long, hot walk in the sun. I had for a close companion Mr. Negishi's dear little boy, who entertained me by describing many objects along the road, and some of the conversation I understood. He was a perfect little gentleman and seemed to feel the responsibility of his position as successor to his father's great estates. A bridge on the road which had been damaged by the storm had been repaired, and the most minute attention had been given to our wants and comforts. The day before Mr. Negishi had workmen cut out all the paths leading to the caves, greatly facilitating our examination of them, and full notes were made. The caves were on the face of a precipice; they were originally burial caves, but had been repeatedly occupied by refugees. Whatever relics they had contained had long since disappeared.

In the afternoon we started for Kawagoe, where we were to pass the night with Takenaka's relatives. Mr. Negishi and his friends went some way with us in their jinrikishas, and formal good-byes were made when we parted.

Again on the road, and another absolutely perfect day, and such varied scenery! Of all the roads in Japan the road from Tokyo to Kabutoyama, by way of Kawagoe, seemed about the most diversified and beautiful. It was like a garden, rich in luxurious farms, long stretches of rice-fields over which we got wonderful views of Fuji, beautiful old farmhouses, courteous people. We passed a group of children just out of school, and they stood by the side of the road and bowed politely to us as we passed them. I have noticed the same behavior of children in Satsuma and in the pottery districts in Kyoto.

When we got back to Kawagoe, where we were to spend the night, Mr. Takenaka had arranged to have me give a lecture on the ancient people of Japan. With the aid of a blackboard I explained the shell heaps and other evidences of an ancient race. Figure 692 is a reproduction of the lecture announcement, which I took down from the tea-house as I came away. We sat up with the family till midnight playing games, and the hearty way in which the two girls, cousins of Takenaka, and the other members of the family, entered into the fun was delightful. The sitting on a mortar with one foot balanced on the other and lighting one candle from another created the greatest merriment. We were the first foreigners that had ever been in the town, and one woman came to the house just to look at us. After a profound bow she said that ten years before she had gone to Yokohama expressly to see a foreigner, but had never seen one since that time.

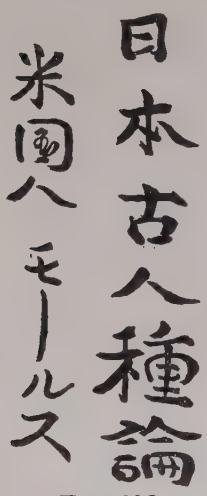


Fig. 692

The next morning Takenaka's uncle cooked the choicest portions of our breakfast, as indeed he had our supper the night before. Takenaka had given to him by his aunt a jar full of cooked grasshoppers to eat as a relish on his rice. The Doctor and I ate a number of them and found them very good; the taste resembled that of shrimps. It is a common custom in this part of the country to eat grasshoppers as a relish, and there is no reason why we should not utilize our grasshoppers in this way at home; the insect was apparently precisely like

our common grasshopper. The Japanese prepare them by boiling them in shoyu, sugar, and a little water, till the water has nearly all boiled away. After breakfast we visited a little temple, which corresponded to our country meeting-house at home. The interior was like a precious cabinet with the most beautiful and elaborate carvings, every last fragment of which would in our country be exhibited in our art museums behind plate glass. The thought was startling when I tried

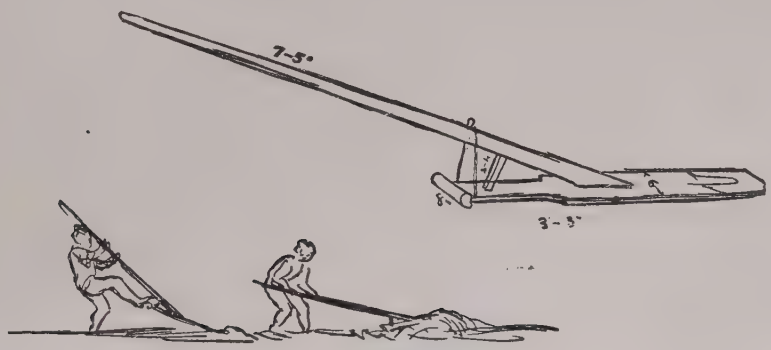


Fig. 693

to realize what bit could be secured as an art object from our country meeting-houses! We also visited a large building where fifty or more girls were engaged in reeling silk from cocoons. As we passed through the factory we were greeted with modest bows and an atmosphere of good-breeding.

After a hurried lunch our host and his brother and the two nieces in jinrikishas accompanied us to the boundary of the town, and then in a little tea-house we drank a parting cup of tea and bade good-bye. On our way out of town we visited a temple where stands a huge coil of rope over six feet in height and three feet in diameter, and this rope was made of human

hair! Hanging from the ceiling were a large number of tresses and queues representing sacrifices in pledging certain vows, or expiatory offerings.

Figure 693 shows a peculiar shovel made of wood tipped with iron. The shovel part was over three feet in length and the handle seven feet long. It is used through the western part of this province (Musashi) and seems to take the place of the plough. It was interesting to observe that in the old houses here, as at home, the timbers were large and ponderous, for wood was cheaper in early times, and there was the lack of knowledge, perhaps, to make an equally strong frame with less material. The traveler often notices the very high polish of the wood floor in country houses and inns, and particularly in the flight of steps leading to the second story. I learned that the polish was obtained by using water from the bathtub to wash the floors; the oily substance in the bath-water after using giving the high polish.

CHAPTER XXV

TOKYO NOTES

October 18. There came to my room two Koreans, father and son. The father was a prominent Government officer in Korea, and in the late revolt had to flee for his life; the son has been studying Japanese in a Tokyo school, and is a friend of Miyaoka. Miyaoka had arranged with the young man to bring his father, from whom I was to get, if possible, information in regard to certain subjects, such as antiquities, pottery ovens, arrow release, etc. They presented their visiting cards (fig. 694). The father was very quiet and dignified, but thoroughly interested in my questions in a sober kind of way; the son was very handsome, and had that peculiar sweetness that so many Japanese faces present. Both had beautiful brown eyes; both were subdued and sad, as if they realized the dreadful degradation and decay of their country from its past intellectual eminence, when it had taught Japan many of its arts. It was somewhat difficult to interrogate the father, from whom I was to obtain the information desired. I would first speak to Miyaoka, who would translate into Japanese to the son, who would in turn translate into Korean to his father, who did not understand a word of Japanese, and the

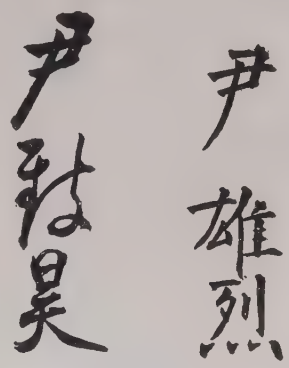


Fig. 694

answers would come back through the same interrupted channel. The contrasts in the sounds of the Korean and Japanese languages, were marked and interesting. At times they seemed to sound like French; a mixture of French, Chinese, and Japanese would well illustrate the sounds. The respectful and dignified way in which the son always addressed his father was marked. Question after question was asked, and it was slow and tedious work, as it ran through the gamut of English, Japanese, and Korean and back through Korean, Japanese, and English. Pottery is still made in Korea, both the white stone and blue decorated kinds, and soft pottery, all of the poorest quality. The pottery oven is built on the side of a hill, and, judging from a poor sketch the father made, is not unlike the Japanese oven. If there is no hill, an incline is built for it. Much pottery is lost in the baking, as in the lower portion it is over-baked and at the upper end the heat is insufficient. The lathe is the kick wheel, such as is used in Hizen, Higo, and Satsuma, where the device was introduced by Koreans in past times. Large jars are made up of rings of clay superimposed one upon another and then welded together by hand. Inside, a stamp is used, cut in squares or circles, and impressions on the inside of large objects may often be seen. I showed the father a number of pieces which Mr. Kohitsu had pronounced Korean and he recognized them as such. He had seen only one in Korea like some of the forms from ancient graves which I had in my collection, and this one had been taken from an ancient burial-place. He had never heard of dolmens or shell heaps, and he added that the study of archæology was not known in

Korea and very few old things had been preserved; he had heard of caves, some of large size, with evidences of previous occupation. The comma-shaped ornament known as *magatama*, found in ancient burial-places in Japan, he had never seen in Korea.

In archery the Korean uses the left as well as the right hand in drawing the arrow, and the left hand is considered the better; in illustrating the method the father used the left hand. The bow is grasped firmly and an arm-guard is worn. A thumb-ring of either bone or metal is worn. The Korean often practices at a hundred and sixty paces, which is probably greater than the York round of a hundred yards. The father made a model of the thumb-ring by cutting it out of paper. He seemed to have no facility with a pencil, but invariably got a piece of paper and folded it up, or bent it, or cut it with the scissors, to illustrate what he wanted to explain. Dr. Oliver Wendell Holmes once told me that he could not do anything with a pencil, but could always cut out of paper with scissors any model he wished to make. Some of the Korean bows are of immense strength, and Korean archers particularly train their muscles by various exercises to draw their powerful bows. It was pathetic to listen to the Korean's frank avowal of the absence of all archæological interest in Korea; he said the only relics they had to show were themselves, and laughed rather sadly when he said it. They look upon the Japanese as the advance guards of Western civilization, and if the hatred that the ordinary Korean has for the Japanese can be modified, it will be a great day for Korea. The Japanese can teach them the many features acquired from the Eastern barbarian.

Figure 695 represents the appearance of the Japanese floor as it is seen raised from the ground. The upright portion has panels which are often ornamented by simple designs of bamboo, pine, or conventional figures cut in stencil. These panels are often removable, and space is secured below the floor for sandals, umbrellas, and the like. The Japanese house has no cellar, and these stenciled panels and open lattice-work secure ventilation beneath the floor.

Fig. 695

The foreigner visiting Japan is impressed at the very outset by the Japanese love of flowers, for everywhere, in gardens, or in little tanks, flower-pots and hanging or standing flower-holders are seen, and he begins to realize that the simplicity and beauty of their arrangement is everywhere manifest. Further inquiries reveal the fact that there are teachers whose sole duty it is to instruct one in the graceful and artistic arrangement of flowers. There are different schools, and diplomas are given to those who graduate.[1]

Fig. 696

[1] Miss Mary Averill, of New York, studied flower arrangement in Japan, receiving a diploma. She has written a book on Japanese flower arrangement which will greatly aid those interested in the subject. Conder's work, entitled *The Flowers of Japan and the Art of Floral Arrangement*, is an important work on the subject.

It is by no means a feminine accomplishment only; students of the University take lessons in flower arrangement as naturally as our students take lessons in the art of spreading a man's nose over his face without dislocating the wrist. Figure 696 is a sketch of a hanging flower-holder with a graceful arrangement of a few flowers. The basket was very old and was signed; indeed, the makers of baskets signed their names just as potters, netsuki and inro artists, metal-workers,

Fig. 697

and other art handwork producers signed their names to their work. One appreciates the art of the Japanese in these matters when he recalls the cult at home. At a lunch I attended in the old Chinese college the tokonoma had three large masses of flowers, bouquets four or five feet in height. They were in simple cylindrical vases mounted on draped stands, the material consisting of large branches and twigs of pine with flowers intermixed (fig. 697).

The varieties of ploughs in Japan are very interesting. The type is after the Chinese style, but the forms in different provinces are quite marked. Figure 698 shows the most primitive

plough in Japan. I saw it used in the Province of Suo. Its form sustains the contention of E. B. Tylor that the plough was evolved from the hoe. Nevertheless, in a painting, nearly three hundred years old, of a Chinese subject I found a curious device in the form of a shovel dragged by a bull. Here is an idea that it might have been derived from a shovel. A shovel of this form is used in Japan to-day (fig. 699). Figure 700 is a Kishiu plough not unlike the one used in Yamashiro and Yamato; figure 701 is from a drawing made by a student of a Chikuzen plough. There are many types of ploughs in Japan of which I have sketches. In mountain regions bulls are used to drag ploughs, and cows are used in softer ground so that boys can do the work.

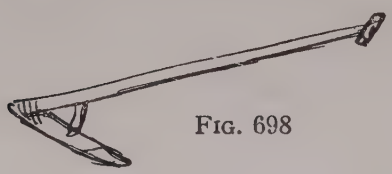


Fig. 698

At a lunch the other day there were dishes of candy made in exact imitation of mushrooms. The dead-white stipe and gills and a translucent, yellowish gray pileus were actually specific in their character.

Fig. 699

In Kyoto there is a building over three hundred years old which rests on the site of a structure built in 1132. It is known as *San-ju-san-gen-do*, and derives its name from two enormous roof-beams thirty-three *ken* in length, a ken being nearly six feet. The building is nearly four hundred feet long, and fifty-

three feet wide, and shelters thousands and thousands of figures of the goddess Kwannon, arranged in phalanxes, one behind the other. They are said to number 33,333.[1] Surrounding it is a veranda, six feet wide, and as you walk along, passing successive doors, which are open on one side and protected by heavy bars, you see this forest of saints standing in close rows like a regiment on parade. The roof overhangs the veranda, about eighteen feet above it, and is supported by a complicated set of beams and bars. In feudal times the custom was to place a target at one end of this long veranda and shoot at it with bow and arrow. The bow had to be of enormous strength, and the archer as well, to throw an arrow nearly four hundred feet with a limited trajectory of eighteen feet. Evidence that the archers missed thousands of times is seen in the dense mass of broken arrows which still stick to the intricate structure above. One's first impression is that big birds had attempted to build nests. Figure 702 is a rough sketch of the appearance of these

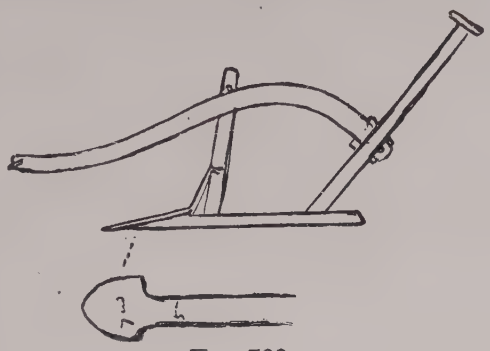


Fig. 700

Fig. 701

[1] All these facts I derive from a guidebook.

Fig. 702

broken arrows which could find lodgment in sheets of copper which covered the beams. In the field beside the building and at one side is a little booth where one can hire a bow and ten arrows for a cent. The target is only halfway down the field. I hired thirty arrows, and though it was an in-

tensely hot day I managed to hit the target several times, to the amazement of the old man who had rented the bow. Having no arm-guard and not being able to twist the bow in Japanese method as the arrow is released, my wrist has been raw for two weeks. I may add that shooting only half the distance my trajectory was nearly as high as the ridge-pole of the building!

The agreeable way the people enjoy the summer evenings is everywhere marked. Riding along the banks of any river,

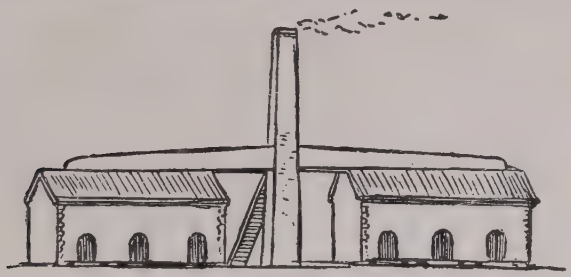


Fig. 703

as in Mikawa and Ise, stagings are seen built along the shore, or even over the river, and here the families collect to eat supper. On many of the long bridges at evening it seemed as if the entire population had gathered to enjoy the fresher air blowing in the river valley.

October 26. Dr. Bigelow and I had an opportunity of visiting the crematory at Senju in Tokyo. Getting permission from the Chief of the Sanitary Bureau, with Mr. Takenaka we started for the crematory at nine o'clock at night. It was an hour's ride to the place. I expected to see a barren-looking region with rather dismal sheds and buildings. Instead I saw

those features associated with all public works of the city: neatly swept grounds, trim fences, and the usual number of pretty trees. On one side of the street is the crematory (fig. 703). It consists of two one-storied, brick buildings, seventy-two feet long and twenty-four feet wide. These buildings are in line, but are separated from each other by a space of fifty feet. In this space stands a tall, square chimney, and to the chimney run large iron flues from the ridges of the buildings. Each building is divided into three compartments, having a

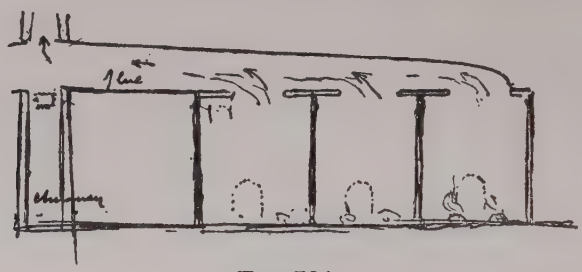


Fig. 704

doorway with sliding doors. A flight of steps, as shown in the sketch, leads to a staging at the junction of the flues with the chimney, and here is an arrangement for burning coal to accelerate the upward draft in case many bodies are being cremated at the same time. Figure 704 shows how each compartment opens into the flue above.

The simplicity and cleanliness of the appliances used in reducing the body to ashes interested us greatly. The furnaces, or better, the fireplaces, are on the ground, and the body, in a bent-up position, is placed on the pile, which consists of two sticks of wood and a little kindling. After the fire has been going for some time the mass is covered with straw rice-bags.

The fireplace consists of a bottom stone, two side stones, and a head stone, as in the sketch (fig. 705). The bodies are consumed in three hours; those we saw had been burning two hours. I pushed the straw away with a stick, and noticed only a few of the larger bones and these were calcined. The room was full

Fig. 705

of smoke, but more from the burning straw than from the bodies; indeed, there was hardly any odor, though the walls of the room were black with soot. In one corner were two little fireplaces for children, in one of which cremation was going on.

The highest price paid for cremating a body is seven yen. This is done in a separate building (fig. 706) which contains but a single fireplace in the centre. The next grade is two yen and seventy-five sen, about $1.37 in our money. This is done in the large building, and the body is burned in the large wooden tub in which it is brought. The third and cheapest

grade costs only one yen and thirty sen; in this case the body only is burned, the tub being saved. The man who superintends the work lives close by and has in his keeping the jars containing the ashes. These jars cost from six to eight cents apiece according to size. He gave me one (fig. 707). In the jar was a little wooden box in which are preserved the teeth, which are carefully picked out of the ashes. A curious superstition seems to prevail about the teeth, and in ancient times the people made prayers and offerings on certain days that their teeth might not loosen. The bodies that were being cremated were of victims of cholera which was very prevalent in the city. The superintendent and all engaged in the work did not have that grim look often associated with sextons, but were cheerful, polite, and pleasant fellows. We were most favorably impressed with our experience and wondered how long prejudice would stand in the way of this sanitary process in our country.

Fig. 706

On our ride to the crematory and back we went through the poorest quarters of the city at an hour when similar regions at home would be crowded with open bar-rooms and charged with vociferous talk. The most decorous New England village could not have exceeded the quiet and order prevailing everywhere. It is certainly a wonderful fact that these people are all so orderly in their obedience to law. The Police Commissioner of Boston has said that hoodlumism is the greatest

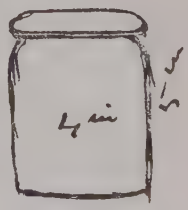


Fig. 707

menace to our country. There is certainly no such menace in Japan; indeed, everybody is well behaved.

My room at Tenmon Dai was in a little house built in foreign style for the attendant of the astronomical observatory. My only stove is shown in figure 708, a square wooden box in which is a round earthen vessel filled with ashes; the tongs, in the shape of iron chopsticks, are seen in one corner in a bamboo tube. Ice has already formed outside and my room would be very cold without the little charcoal fire. I have become accustomed to the carbonic acid gas, though most of it settles through the cracks of the floor; when it gets too strong I open the door. On inquiry I found that the Japanese never suffer any inconvenience from burning charcoal, their sole means of heating. The old woman who builds my fire, or rather brings in a few hot coals from her own hibachi, had never heard of the gas being injurious, nor had she an idea that it could kill one. My room is in a continual tangle of confusion — the accumulation of pottery, ethnological objects for the Museum at Salem, notebooks, pictures are all crowded into a little room hardly big enough for my bed and writing-table. Figure 709 is a rough sketch of the room from where I sit at the writing-table.

Fig. 708

The other day I had the opportunity of sketching a woman — the wife of the man who looks after my little house — in the act of blackening her teeth. She told me that she had to do it every three or four days. A special copper vessel is used in which to discharge the rinsings of her mouth; a metal shelf

rests across it, upon which are two brass vessels, one a box in which are nut galls pulverized and resembling ashes; in the other a fluid containing iron in solution. This solution she makes herself by soaking a piece of iron in vinegar, using an old jar for the purpose. The brush used is a small piece of wood frayed at one end, the ordinary Japanese toothbrush.

Fig. 709

This she dips into the iron water, then into the nut gall, and rubs the teeth as if she were cleaning them, rinsing her mouth now and then from a bowl of water at her side, and at times taking up a mirror to see if her teeth are sufficiently blackened. It is said that the operation is good for the teeth (fig. 710).

The common name for violets is *sumo-tori-gusa*, sumo-tori meaning "wrestler," as the children play with the flowers by hooking them together and pulling them apart to see which one yields.

The word for "ceiling" in Japanese is *tenjo;* literally, "heaven's well," coming from the same root as our word.

The word for "fool" in Japanese is *baka,* which literally means "horse deer." Sea-sickness is called *funayoi* — "boat intoxication."

Fig. 710

For the first time the Emperor's garden has been open for inspection, by special invitation. A few days ago cards were sent to all native and foreign professors and, presumably, to all the Japanese officers of the same rank, for the chrysanthemum display. To-day and to-morrow are the days appointed, and being considered an officer of the University, though I have no official connection with it now, I was invited. Heretofore only members of the diplomatic corps among foreigners could get access to the gardens. Each ticket permitted the possessor to take five members of his family, and it would seem

that every ticket was used to its fullest capacity. There were many ladies and children and they were beautifully dressed. It was delightful to see the perfect behavior of the children — no shouting, or screaming, no tearing around by the boys. It was a perfect paradise in itself. I have neither the language nor the ability to describe the wonderful beauty of the grounds. The place was of large extent and had originally been built on a level plain. There had been constructed undulating hills; rock ravines, down which poured mountain brooks; valleys; bridges; rustic summer houses, — everything to admire.

In our party was a tall foreign teacher (American) recently appointed to the University. He was like a bull in a china shop. He stalked through the grounds and saw nothing to admire; indeed, his comments were so rude and ridiculous that we finally got rid of him. Before he left us, however, we came across a beautiful little summer house shockingly disfigured within by a cheap, glaring red carpet from abroad, and this man, for the first time, saw something to praise, and he commented on its beauty utterly oblivious to this shocking incongruity in a room with the most delicate and delicious cabinet-work in natural woods.

The flowers were beautiful in their variety and daintiness. They were arranged under tastefully constructed shelters of bamboo and reed matting, though in some instances more permanent shelters were provided. There were many wonderful trees and some of dwarfed varieties, — one with a disk of dense foliage, twenty feet in diameter, and not over two and a half feet high, with a trunk a foot in diameter; rustic fences and bridges, and beautiful little lakes. The Japanese excel

the world in the art of landscape gardening, and they seemed to enjoy the beauties of every feature, and the foreigners were equally appreciative, all except our tall professor, who appeared bewildered and positively unhappy.

On the 3d of November, Count Enouye, Minister of Foreign Affairs, gave a great party in honor of the Emperor's birthday. To this party were invited all the foreign diplomats and all the teachers with the rank of professor, besides a great many other high officers. A thousand invitations were issued. Count Enouye's house is very large and spacious, built entirely in foreign style. The grounds were brilliantly lighted with gas jets and lanterns. Such a variety of costumes as were seen! The Japanese ladies were beautifully dressed, and the various nationalities — French, Russian, Swiss, German, Italian, English, and American attachés of the embassies and the legations — were in their respective uniforms, many with brilliant decorations. Seven Chinese and eight Koreans were in their national costumes.

To me the most interesting features were the two Japanese brass bands, the Army and the Navy, side by side, and playing alternately. They were very full bands with Japanese leaders and with all the modern instruments, playing, with great precision, music from classical composers. I was amazed at the crispness and accuracy with which they played and at the progress they had made in four years; for I had heard the Army band play four years ago and remembered distinctly how crude the performance was, and that I came to the conclusion then that however perfectly the Japanese could acquire foreign methods, in our music they would certainly fail to

grasp its meaning and its proper rendering. I argued this way because the two musics were so entirely unlike. Now I must alter that conclusion and admit that, so far as our music is concerned, practice only was required. It would have been impossible for any one but an expert to have told whether Japanese were playing or good foreign musicians. It was also curious to see the number of Japanese ladies and gentlemen who were joining in the dancing, and who were dancing very well too. On both floors of the house a delicious lunch was served, with wine, champagne, and beer in abundance. On the grounds outside brilliant fireworks were being discharged, and the whole affair was a great treat.

I have begun the study of the intricacies of the tea ceremony and have joined a class of Japanese. My teacher, Mr. Kohitsu, tells me I am the first foreigner to take lessons in the art. The fact that I was taking lessons got into the newspapers, and also the statement that I had astonished the old fellows at the school by rapidly identifying the pottery brought out on the occasion. It seems curious that the newspapers here, as at home, get hold of all trifling events, social gossip, and the like; it shows that human nature is the same the world over.

The Japanese are said to have no inventive faculties, but in my rambles around Tokyo I have noticed many mechanical appliances of a simple nature which our artisans might adopt. To-day I noticed a man who works in pearl-shell cutting. The piece of pearl to be sawed was held down by an elastic strip of bamboo bent under a transverse bar above, as shown in figure 711. The saw rested vertically upon the piece to be sawed and the sand used in the operation remained in place. It was a

simple form of vise that could be instantly adjusted, and the varying degrees of firmness could be got by selecting stiffer or lighter strips of bamboo. The tub was full of water so that the pieces could be immediately washed.

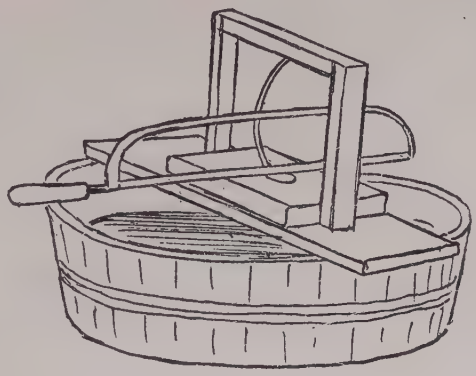


FIG. 711

Figure 712 represents a blacksmith at work. He sits on the ground, or floor, as do all operatives. The bellows consist of a long, square box in which a square piston is moved back and forth by means of a rod and handle; with his left leg the blacksmith blows his bellows by grasping the handle with his foot and moving his leg back and forth, leaving his two hands free for hammering. In this case the helper stands up. The tools were not unlike those used by our blacksmiths at home, though I noticed in some of the larger hammers, perhaps in all, that the handle was not inserted in the middle of the iron part, but nearer to one end. The floor was littered with bits of iron bolts and the usual bits and fragments one sees in a blacksmith's shop at home. Sometimes a boy is employed to blow the bellows, and this he does with his hands.

In many parts of the city ditches or deep gutters run along the streets, especially along the walls of yashikis. These places are the breeding-grounds of the mosquitoes which infest the city and are a source of livelihood to the men and

boys who with nets drag for mosquito larvæ and sell them for goldfish food.

For the last few days professional packers have been at work packing the pottery, and the floor is covered with boxes and straw. It is interesting to see their method of wrapping each piece in straw. The man takes a handful of straw, combs it out straight with his fingers, gives the mass a twist

Fig. 712

in the middle which spreads the straw at each end like a fan; the bowl is then put in the centre, and the straw folded over the rim of the bowl around the edge. Tea-jars are done up in the same way, the straw being twisted above. With large cylindrical pieces of irregular contour a long straw rope is made and wound around the piece. The cook's little girl and a playmate came to the door and peeked in, the sight of so many specimens of pottery amazing them. I invited them in and gave them some paper and scissors, and the skillful way in which they cut out dolls and made chickens, herons, and other ob-

jects was surprising. I saved them all and they will go to the Museum in Salem. I gave them a pot of tea and two cups, and it was interesting to see and to hear them: one poured tea for the other, and when the cup was passed the child thanked her as courteously as if they were playing ladies, and yet they were not playing, they had simply been brought up to be polite. They were not more than nine or ten years old, dressed poorly, and were the children of the servants in the yashiki.

The other day I made another visit to the insane asylum just back of my house. The superintendent was very kind, spoke a little English, and with my little Japanese we got along very well. I got a good deal of information about the percentages of troubles, causes of insanity, etc.

Mr. Machida, the sword merchant, came in to spend the evening, and I kept him till midnight asking him questions. In his time he has acted as executioner, having beheaded a great many criminals, and he told me some very grim stories. It is curious how different nations regard the same act. An executioner is loathed and an outcast in some countries and the professional executioner in Japan is from the Eta class. In Japan a gentleman considers it a fine chance to try the temper of his blade by beheading a criminal. For another reason also: if any of his friends had to commit hara-kiri he might be called upon to do the act of beheading, as the act of disemboweling is followed immediately by beheading by a friend, who with a quick stroke cuts off the head. One sees a striking representation of this act in the theatre when the play of the "Forty-seven Ronins" is presented. The beheading of a criminal gives a man practice. Mr. Machida told me that it

did not require such a very hard blow to separate the head from the body. He said the first time he performed the act he struck so hard that he broke his sword by striking a rock on the ground. A bandage is tied about the criminal's eyes; he kneels upon a mat, in front of which a hole is dug big enough to admit the body; attendants hold the arms back, and immediately after the head drops into the hole the body is pushed after it and the mat thrown over it. Mr. Machida says the muscles about the cheeks and lips quiver for some time, and the same quivering motion is seen in the hands and even in the whole body. He gave me some interesting details about the battle of Uyeno at the time of the Restoration.

During the month of November an interesting market is held back of Asakusa Temple, where a large number of booths are erected in the streets for the sale of curious charms to insure happiness and wealth. These charms are miniature bags of rice, twisted straw, and other symbols of plenty and happiness made of bamboo covered with bright-colored and gilt papers. In some the ship of fortune is represented holding the seven treasures; others are in the shape of a fan or rake with the mask of Otafuku, goddess of Happiness, in the centre, with various devices about the sides. It was curious to see the narrow streets and lanes closely crowded with people and lined with rudely constructed booths, on both sides, packed with these strange-looking charms and emblems, some of them of large size, five feet or more in diameter. Throughout the day of the festival the people are seen returning home bearing these things in their hands, or riding in jinrikishas, and if the objects are large holding them up like banners. The objects

were always mounted on a rod of bamboo. Figure 713 illustrates two of these charms, the smaller one showing a dry measure in the centre with sprigs of rice. These objects were all roughly made, and yet, flimsy as they appeared, they never seemed to break apart. They had a decorative character, too. Near by was a Shinto temple, before which crowds of people were praying, standing seven or eight deep. A large contribution box stood in front of this temple, at least eight feet long and three or four feet wide and deep, and into this dropped a continuous shower of rins, tempos, sens, and larger pieces of money done up in paper. Near by was a rude stage where some play was going on accompanied by a drum and flute which kept up an incessant noise without a moment's pause. Little children with shrill voices aided their parents in calling out the character of wares that were being sold in the crowd. Two beggars kneeling on the ground in an open space were the only

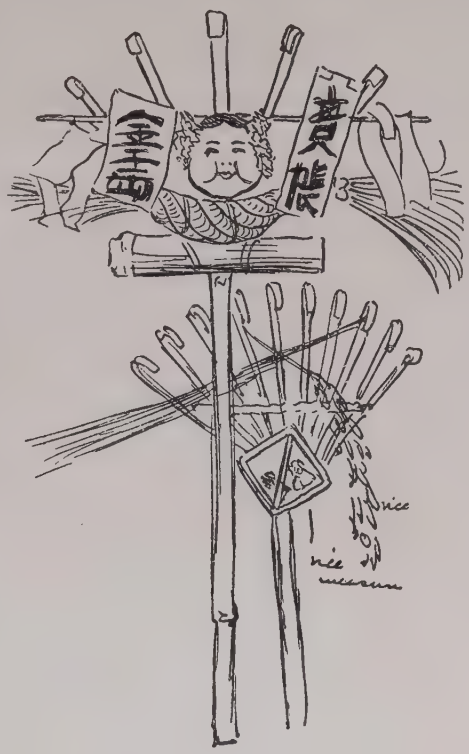


Fig. 713

evidence of poverty in the mass. A peculiar potato was being sold to be eaten raw or cooked; mochi was for sale in large slices; hairpins of the cheapest character — mere tinsel — were sold as souvenirs of the fair; and everybody was smiling and happy. The celebration was a new one to me and well worth seeing.

A fat and good-natured friend by the name of Sakurai, whom I first met at Nagoya under the name of Gonza, and who helped me greatly in that city in hunting up pottery and directing me to the proper shops, has come to Tokyo. He has brought not only documents relating to early potters of Seto, but also a number of objects of interest, and is stopping in Tokyo, at some considerable expense to himself, in order to help me pack. His wife and daughter at Nagoya sent me by express a rare old Owari bowl that may prove to be a Gempin. The present was accompanied by a letter in *katakana* which Takenaka has translated. It runs as follows: —

"We write to you. How you are? Getting very well? We congratulate you are well this time. Gonza went to you and you bought many from him. He sent me very much money. I thank you very much. We present this bowl to you and glad to express my thanks. We wish you to carry it to your native country. I got this bowl from a yashiki. It is very old. Please use it. We hope very much that you will get home in safety. We send only a few words. We happy. We congratulate.

"Goes to Morse Esq. Nov. 10.

"Tsuru, Mother.

"Haku, Daughter."

In regard to Japanese gestures, a few are like ours and others are quite different. Takenaka told me that a common gesture was, when one asked of a friend some good thing like candy, for the friend to pull down the eye giving a sort of leer, as much as to say, "Don't you wish you could get it?" In beckoning with the hand, the back of the hand is uppermost, though the fingers move in the same way that ours do. In saying "no" the hand is moved back and forth in front of the face. In talking with a friend about the similarity between the gestures of the two peoples, I called attention to the resemblance in expressions of amazement, perplexity as shown in rubbing the nose, etc., but the expressions in displeasure differ. With us we usually frown and compress the eyes, but the Japanese when "mad" open their eyes wide; and a boy who has done something wrong will get a scolding, or *Omedama chodai;* literally, a "gift of eyeballs." A curious movement is made if the finger is slightly burned: the lobe of the ear is instantly grasped; the ear is always cool, which alleviates the pain.

In the college dormitories students are not permitted to have any kind of musical instruments, nor are they allowed to play chess and go, as it would interfere with their studies. Their work, beginning early in the morning, is one hard grind; subjects precisely like those taught in our colleges at home are studied, but all in English, or, in the Medical College, in German. A samurai boy rises at six o'clock, washes his face beside the well, then reads some book in a loud tone of voice.[1] The

[1] Reading aloud is customary, as otherwise they say they cannot understand what they are reading. In college as they progress in their studies they lose this habit.

grade of different dormitories is recognized by the noise the students make in their reading. After an early breakfast the boy goes to school, and must write through six or seven books, forty pages to a book, and four large characters to each page. The pages are written on again and again, the wet ink showing clearly on the dried ink. A lazy boy will sometimes make splashes on the page, but the teacher can generally detect the trick and the boy is kept after school as a punishment. The boy always takes his lunch box with him and comes home "hungry as a bear." His mother gives him cake which he eats greedily; he then plays until supper, and after studying his lesson for the next day goes to bed.

A class of girls are found in Japan of which we have no parallel in our country: they are known as *geisha*, and it is the duty of these geisha to entertain company, the wife and daughters not appearing. For instance, you give a dinner to some friends, and you may employ two or more of these girls, who not only help in the pouring of wine, but by their bright and witty conversation put everybody in good humor. Many of them are quite pretty and all dress beautifully. I remember meeting at one dinner a geisha who was not only unusually plain-looking, but who was quite old. On inquiring about her of a Japanese friend, — for I had supposed before that the geisha were employed for their beauty, and possibly youth, — I found that she was one of the most famous geisha in Tokyo. To a dinner party of a dozen men, officers of the Government, perhaps of irreconcilable political views, this geisha, by her amiability and conversational skill and wit, would, within a short time, bring harmony, good-nature, and a freedom of

action that for the time being would melt the crowd into a congenial whole. In our country it is a common experience for us to invite some young lady to a dinner solely for the purpose of having things go off pleasantly, but we do not pay her. In Japan it is a profession, and these good-natured, witty, and sprightly girls, polite and gentle, represent a large class who earn their living by entertaining at dinners and gatherings of all sorts, and they are certainly, in their manners and accomplishments, far more entertaining than the usual run of girls and women one meets outside this class. These girls often marry from the chance acquaintances made on these occasions, and it may be said with truth that love matches are sometimes made during these festivities.

In using an arrow to pull something from behind my bureau I broke it, which led Mr. Takenaka to inform me that in past times the Japanese made their arrows purposely very weak that they might not be used again by their enemy.

Mr. Machida came in a jinrikisha full of weapons: long spears and various warlike implements; fans for military signaling; a beautiful bow and quiver with twelve arrows; all the implements used by fencers in practice, sword and spear; and these he gave to me for the Peabody Museum, Salem. The swords he is going to bring next week. I am having many things given to me for the Peabody Museum, but this gift of Machida's is by far the most important accession.

Yesterday two Koreans, father and son, whom I have met several times, came to bid me good-bye, as the father is soon to return to Korea. The son speaking Japanese we got along quite well until I tried to ask the father if he had anything

Korean of no particular use to him to give me for our Museum. This was more than I could say in Japanese and after floundering for a while I sent out for a Japanese friend to interpret. He said he would see if there were any articles in his room. Last night eight different articles were given to me, all Korean and all of interest.

Japanese farmers eat five or six times a day, principally rice, radishes, fish, etc. It has been ascertained by actual measurement (so Takenaka, who is a medical student, informs me) that the Japanese stomach is larger than that of foreigners; this may have been caused by the large amount of rice they consume. It is amazing to see in the country little children with abdomens roundly distended by the quantity of rice with which they have literally stuffed themselves.

Mr. Takamine, Director of the Female Normal School, went with me to the Imado District, where there are a number of potteries, and endeavored to get some information about the potters. But the people seemed rather stupid, sluggish, or indifferent, and I could not arouse in them any interest in the matter. I finally left with the conviction that the blighting effects of some rude Englishman must have been responsible for their stupidity or aversion. The contrast with the Kyoto potters was marked.

Takamine invited me to dinner at his house. There were a number at dinner, and I felt as much at home on my knees for an hour or more with chopsticks and strange food, to which I have become accustomed, as I do at home sitting in a chair using a knife and fork. After dinner Mr. Takamine conducted us to the tea-rooms, where were all the utensils for cha-no-yu

and invited me to make ceremonial tea, which I did, after a fashion.

Afterwards Takamine guided me to the Eta district. The Eta were formerly looked upon as unclean; they worked in hides and leather, carried off the bodies of animals, and were in a general way the scavengers of the city. No one was allowed to marry into the class; they were shunned and abhorred, though some of them were wealthy. They were compelled to live apart from the people in a certain district and no one ever went through their region. Now all legal restrictions are removed, yet the Eta live by themselves. The main street has a peculiarly deserted appearance, — not a jinrikisha is to be seen and hardly any shops; a few signs, but no paper signs or lanterns in front of the shops. I passed five places where they were making drums, as the work of drum-making involves the handling of leather. It seemed as if the children looked a little coarser, but there was no humble or crushed appearance in the people such as I had expected to see. Perfect quietness and soberness reigned. The children were spinning tops and running about as in other places but a certain serious atmosphere was there without question.

I met at the Normal School an educated Ainu from Sapporo in Yezo. He has a typical Ainu face and is able to converse fluently in Japanese. I asked him a number of questions about his people. He said the Ainus made no pottery, and, so far as he knew, they never had. I got from him all the details regarding the bow and arrow and how the hand was held in drawing the bow. The Ainus draw the arrow with the thumb and bent forefinger. It will be interesting to ascertain whether

the lowest savages have this simple method of releasing the arrow and if the higher races have a more complex method.[1] I also learned that the Ainus shoot arrows at the feet of a man running away.

In the preparation of flax in Suo an enormous cylinder of wood, made like a barrel and tapering above, open at both ends, is filled with flax, and this is placed over a kettle of water fixed in the ground and fired below; the water is then boiled for some time, the steam passing up through the flax. A device like a well-sweep lifts the cylinder when the flax is sufficiently steamed (fig. 714).

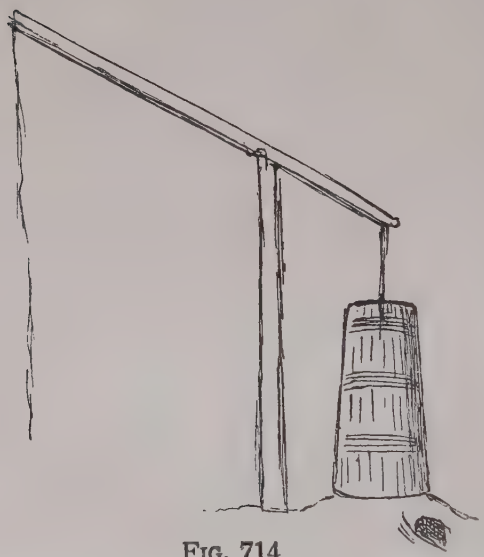


Fig. 714

Ninagawa's obsequies were observed to-day, and I was invited to attend. As he died of cholera no public funeral was allowed at the time, and now, after three months, the obsequies are held. I went early with Takenaka to the cemetery beyond Uyeno, and while waiting for the procession, sketched a few

[1] I have since ascertained that the low savage people have this simple method as described. See *Memoir on Ancient and Modern Methods of Arrow Release.* Essex Institute, *Bulletin*, Salem, Massachusetts, vol. xvii (1885). The last edition of the *Encyclopædia Britannica* gives this reference as follows: "Archery Ancient and Modern, by E. S. Morse, Worcester, Mass., 1792."

gravestones, and then watched the main avenue to meet the funeral when it arrived. Soon it came: first, twelve men bearing new, white lanterns on bamboo poles; the men were dressed in white and had curiously shaped ceremonial black hats made of silk (fig. 715); following these were two men bearing enormous bouquets of flowers; then a long affair borne on the shoulders of six men, the hearse, in fact: empty, of course, but representing the remains of Ninagawa (fig. 716). Following this came the mourners, a sister of Ninagawa, his nephew, and a number of other persons whom I did not know, some on foot and others riding in jinrikishas. I had often seen these funerals on the street and had supposed they were genuine, but many of them are simply honorary funerals. The hearse was carried into a large building open on all sides, but protected by a white curtain that fluttered back and forth in the wind. It was quite cold, and it was uncomfortable to sit there bareheaded.

Fig. 715

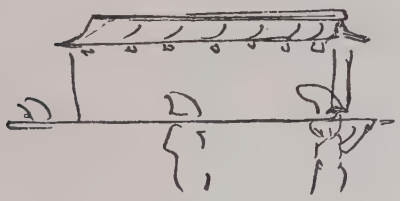


Fig. 716

Figure 717 is a hasty sketch of the appearance of the interior when the service began. The hearse, or bier, is seen to the left resting on two supports; masses of flowers are in stands at the ends of the bier; then come two lacquer tables, one lower than the other, and resting against the larger one is the wooden post bearing Ninagawa's name.

This is carried in the procession and is used as a temporary gravestone. The tables held cups and objects of polished brass, with food offerings on black lacquer stands, six candles burning in simple wooden candlesticks. The priests, all shaven and shorn, wearing beautiful brocade robes, marched in and took positions as shown in the sketch. A bench on each side accommodated the chief mourners. I sat on the right next to a high priest who for some reason did not join

Fig. 717

the other priests, but continued to mutter a prayer. The kneeling priests opened their prayer-books, which they placed on the floor in front of them, but never looked at them. A low, humming sound, begun by the head priest, was taken up gradually by the rest. The sound, though apparently meaningless, as I could not detect a single articulate word, was not without interest. It sounded like a dirge. After the humming had gone on for a while one of the priests picked up a large pair of cymbals and clanged them several times. Then the other priests uttered short prayers, rolling their

heads in their hands, terminating with a short whisk or movement of the head, and resuming their chant, which seemed interminable in the cold wind. Then the head priest (whose head is accurately depicted in the sketch), after the

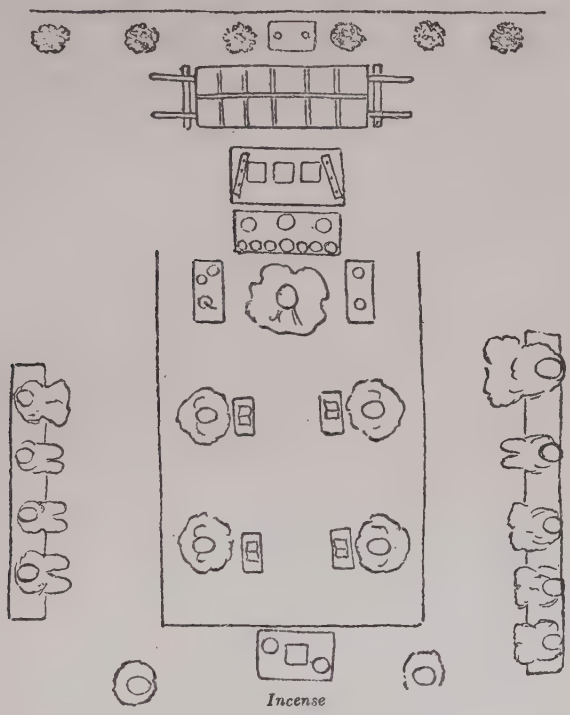


FIG. 718

cymbals had been clanged again, rose, untied a large fold of paper, and in a pathetic, or funereal, tone read a brief account of Ninagawa — who he was, what he did, etc.

At this point Ninagawa's sister rose and stood in front of the table, marked "incense" in figure 718, on which was a receptacle for coals, and at each side of which was a little box

of incense. She first clasped her hands and made a low bow; then out of the left-hand box she took a piece of incense and put it on the coals, again bowed low, and took her seat. The nephew followed next, going through the same movements; and then, to my surprise, the Japanese sitting next to me nudged me to go up, but I whispered to him in what Japanese I could command to go first, that I might watch him intently. He took the incense from the right-hand box. I had to go next and must confess to some embarrassment, as in the presence of eight priests I had to fold my hands, make a low bow, and take the incense from the right-hand box.

FIG. 719

There were no tears or other evidences of grief, but there was certainly a soberness, even solemnity, in the ceremony. Fifty or sixty people stood near the building and probably wondered at the novel sight of a bare-headed foreigner in long ulster among the mourners. After the burning of the incense the ceremony ended. The sister, an old lady of sixty or more, came to thank me for my kindness in joining the mourners; the nephew also thanked me. The wife does not go to the cemetery until the day following, and for that reason Mrs. Ninagawa was not present. Figure 718 is a rough diagram of the affair showing where the priests and mourners sat.

Figure 719 represents a Buddhistic gravestone; this one is

an old style. The holes in the rock are to hold flowers. On the Buddhistic gravestone the spiritual name is used, a name that one receives after death. On the Shinto, the real name of the deceased is engraved with a brief account of his life. The Shinto stone shows the natural cleavage of the rock as it is quarried. Figures 720, 721 represent Shinto gravestones.

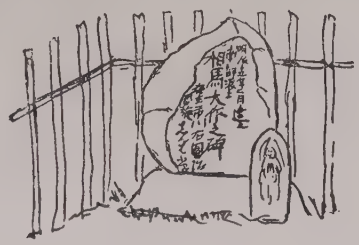


Fig. 720

The Japanese worship their heroes and never forget to decorate their graves, even those hundreds of years old. In 1338 Yoshisada was killed in battle while fighting to restore Go Daigo, the rightful Mikado, to his throne. To this day his grave is carefully guarded and fresh flowers decorate it. A shrine and monument were erected in 1875. Other burial-places equally old are cared for in the same manner.

After the funeral I hurried to Takamine's house, where he had invited a northern archer to shoot for me that I might sketch the attitude of the hand in drawing the arrow. The Chinese use a thumb-ring to engage the string in pulling the bow. The Japanese use a long-wristed glove with two or three fingers and a thumb, the thumb greatly thickened. There is a groove at the base to catch the string, and a strap secures the glove firmly about the wrist. Figures 722, 723 represent the attitude of the hand in pulling the bow; figure 724 shows the archer's

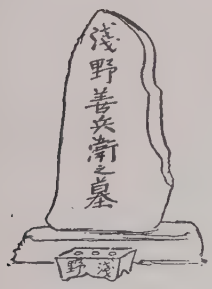


Fig. 721

glove. The release is somewhat difficult to acquire, but it is just as strong as that of our people, which consists in pulling the string back with the tips of three fingers.

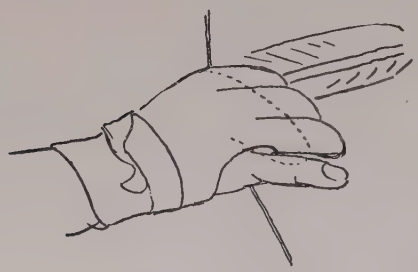


Fig. 722

I hunted up an authority on pottery who had been a high official, but who had lost his place through intemperate habits and was a bankrupt. He was living in an obscure house with evidences of poverty, and his condition was pathetic. He had a big boil on his neck and a severe cough, his house was in disorder, and the futons showed that he had been lying down, but he invited me in without hesitation or apology. I inquired about various pottery authorities. He said Mr. Kohitsu was a good one, and also gave me a letter to Mr. Kashiwagi.

Though it was nearly six o'clock and dark, I hunted the latter up, or my jinrikisha man did, and finally found, on the corner of an open square, three gloomy-looking godowns, or kura. I went through a low opening in a bamboo fence, fifteen feet high, and was shown into one of the godowns (fig. 725). Mr. Kashiwagi introduced me to three men, all antiquarians. He was very kind and showed me a number of interesting things which I immediately sketched, and he

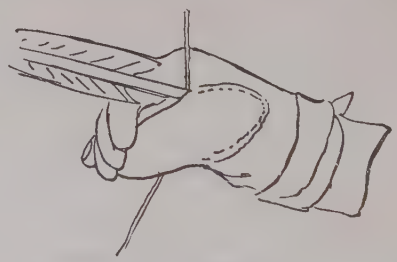


Fig. 723

also gave me many points of interest regarding a number of potteries of which he seemed to have knowledge. He said the idea that "Satsuma floral decorated" was over eighty years old was absurd. His remarks on pottery are recorded in my pottery notes. He has the rarest collection of old Japanese coins, ancient pottery a thousand and more years old, rare pictures, and many other things. Every object in the room was old and rare. The hibachi was very old; the lower half was of lacquer inlaid with pearl, the motive of decoration being horses' bits!

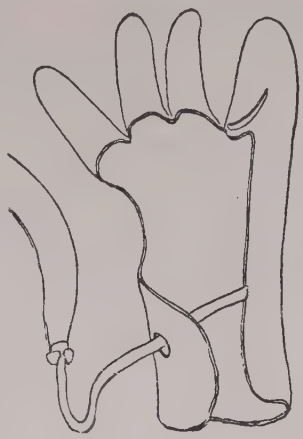


Fig. 724

I also learned some new points regarding house matters. The way the Japanese convert a large, cold, barny room of a fireproof building into a pleasant place to live in is shown in figure 726. A square framework of bamboo is erected conforming in shape to the room, but smaller, leaving a passageway of three and a half feet between the frame and the sides of the

Fig. 725

room. This framework is covered with cloth, slightly glazed, and as it is smaller one can walk between the cloth and the sides of the room. He showed me an old book published in 1700 in which full directions were given for constructing this frame and hanging the cloth. It is evidently an old idea and showed that these fireproof buildings were utilized as living-rooms. I had never seen the device before, though I have been inside a good many of the buildings. In summer the room must be very cool and agreeable. The walls of the godown were lined with bookcases and cabinets and here Mr. Kashiwagi's books and treasures were stowed away. The curtain is looped up, forming an opening into which he would dive for some object, and I could follow him about by the light of the candle which faintly glimmered through the cloth.

Fig. 726

Some time ago, Mr. Masuda told me of an antiquarian he wanted me to meet, and I have tried to make an appointment to go with Mr. Masuda to the place. Last night I called again on Mr. Kashiwagi, but he had not returned. After waiting a little while he came in, accompanied by Mr. Masuda, who appeared surprised and delighted to see me and wondered how I had found the place. Seven or eight antiquarians were there,

and it was delightful to talk with them and to discuss pottery and other precious things which Mr. Kashiwagi brought out. I have acquired enough Japanese to get along easily in discussing pottery and antiquities and do not require an interpreter. The appreciation of these old things is shown by everybody, and scholars meet to discuss subjects of every kind; it is one evidence among hundreds of others of their long and high civilization.

To-day I was invited to dinner by Prince Fushimi-no-Miya, at the Seiyoken, at Uyeno. There were twenty-one guests, nearly all governors of provinces. I met there the Governor of Nagasaki, who was so kind to me when I dredged at Nagasaki some years ago. I sat at the right hand of the Prince, and as he is President of the Fish Commission, I imagine the dinner was given to me in return for a lecture I gave before his commission some months ago.

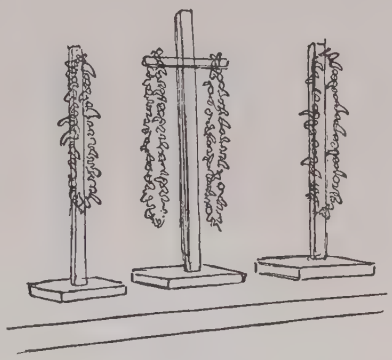


Fig. 727

I visited Matsura Takashiro, an antiquarian of some note, who received me very kindly. He has recently published a work on antiquities in two folio volumes with excellent illustrations of rare objects in his collection. I had an introduction from Mr. Hattori, Vice-Director of the University. The servant brought out a number of boxes, and these Mr. Matsura unlocked with keys from a large bunch, each key having an ivory tag. While he was unlocking the boxes the girl brought

three stands which she placed in the tokonoma. He then took out long strings of beads, chiefly *magatama*, a comma-shaped stone, and other forms composed of quartz, jasper, and other minerals, and hung these on the stands (fig. 727). Many of them were of great rarity, most of them from Japan, and all dating back to a dim historic past. They were all dug up from burial mounds and caves, and some are found in earthen jars. The magatama extends from Loochiu Islands on the south to northern Japan. Mr. Matsura had never heard of a magatama being found in Yezo, or China, but other kinds of stone beads are found in China. He has the largest collection of these objects in Japan and all of the younger Siebold's material for his work on "Japanese Antiquities" was drawn from Matsura Takashiro's collection. He has many other heads in drawers, of which I sketched a few (fig. 728).

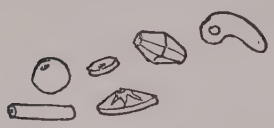


Fig. 728

I was telling Takenaka about our boys when very young playing with dolls and paper soldiers. He told me that the samurai boys were never allowed to play with dolls or such things; their bringing-up was intended to train them as warriors; they were to keep sober when others laughed. At meals the boys rarely, if ever, talk, and it impresses them as very odd to hear foreigners talk so incessantly at their meals. It is difficult for them to understand some of our jokes, and what we call "chaff" is incomprehensible to them.

Figure 729[1] is taken from a humble house that I passed every

[1] I cannot resist reproducing the original sketch, a drawing of which appeared in *Japanese Homes*, as most characteristic of Japanese taste.

day on my way to the University. The occupant had some pottery he wished to show me, and while he was taking the pieces from the boxes I made the sketch. The interesting way in which a large fragment of an old shipwreck is worked into the general effect is unique. The rich, gray color of the wood

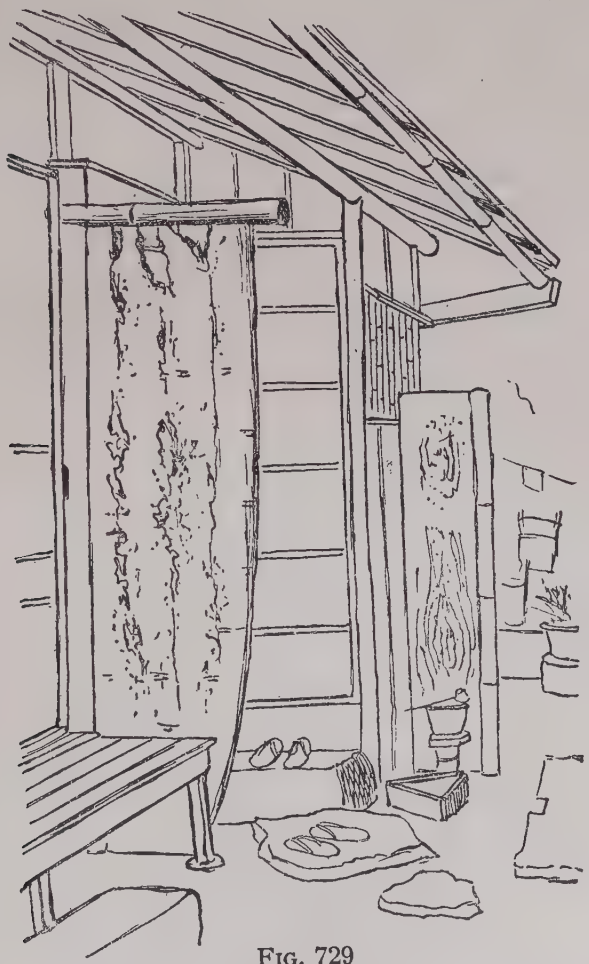


Fig. 729

with warm, red stains of iron rust, the little holes bored by *Teredos*, and the appearances of age are all features which the Japanese admire. The door of the latrine is just beyond and this ship fragment takes the place of the *sode-gaki*. I have often observed a peculiar fence which projects from the veranda, or from the side of a house, never more than four or five feet. It hides some objectionable features from the veranda, and we might adopt it with advantage. It is called *sode-gaki*. *Kaki* means "fence" and is changed to *gaki* for euphony; *sode* means "sleeve," it being shaped like the sleeve of a Japanese dress.[1]

One often notices along the streets women engaged in smoothing strips of cloth on long, narrow boards that lean against the house or fence. The surface of the board is very smooth. It is first rubbed with a seaweed that is sold for the purpose. Wet with water it gives out a gelatinous substance. The wet cloth is smoothed down on this board and placed in the sun to dry. When the cloth is pulled from the board, it is smooth as if it had been ironed and stiffened as if it had been starched. A similar idea is resorted to in our country when a wet handkerchief is smoothed down on a window pane. A device is seen in the form of a metal pan with handle and polished bottom. This is filled with burning charcoal and used as we use a flatiron. In drying cloth after dyeing, little strips of bamboo sharpened at the ends with shoulders are used to stretch the cloth apart, the cloth being suspended from two poles. A great many are used on a single piece of cloth.

[1] I have Japanese books giving many of these sleeve-fences, and in *Japanese Homes* I have figured a number of them drawn from the gardens here.

The other night I took two little girls, children of the servants about the yashiki, to walk along the Hongo where a fair or *matsuri* was going on. I gave them each ten cents in coppers to spend, and I was interested to see how they would invest the money. It was like giving a child in similar circumstances in our country a dollar in change. The children stopped at every booth where hairpins were displayed, and though buying only one or two at half a cent apiece, nevertheless, examined every one. We passed a poor woman sitting on the ground dolefully playing a samisen, a beggar, in fact, and each of the children without a hint from me dropped a cent into her basket.

Miyaoka spent the night with me, and among other things told me that in past times, and even at present among the superstitious, it is believed that when a person sleeps the spirit roams away. It was therefore customary to give a child a drink of water before going to bed, whether thirsty or not, to prevent the child's spirit from being thirsty and drinking stagnant water while on its wanderings.

I inquired of Miyaoka about his personal expenses. He said his board, including charcoal and oil, amounted to five dollars and fifty cents a month. It is true he gets only rice, vegetables, and fish, but how low compared to our prices! Mr. Takamine told me that many of the servants about the Normal School, men who had families, work on a wage of fifteen cents a day.

Coming out of the college yard the other day with Professor Mitsukuri, one of the attendants bowed to us as he passed, and my friend remarked that the man, before the

Revolution of 1868, ranked higher than a samurai and just below a daimyo. The Restoration left him utterly incompetent to earn a living and he was capable of filling only a servant's place. The Professor said it was a good illustration of the absurd conditions of some features of feudalism, at the same time showing the patient manner in which these men often assume menial positions with resignation and humility and are willing to work rather than to beg or borrow. I was told that samurai had become jinrikisha men; it is true they were not high samurai, but the fact that they work indicates an absence of the false pride so common with our race. The man who looks after my laboratory has a salary of twenty-five cents a day, and on this he supports a wife and a daughter who is taking music lessons.

Yesterday I went through a street from which ran little alleyways, not over five feet wide, lined with dwelling-houses. It looked squalid to me, and Mitsukuri told me that it was the lowest and poorest quarter of the city. I went slowly along and examined each alley in turn. I heard no loud cries or shouting, saw no blear-eyed drunkards or particularly dirty children, and for a hundred children picked at random from what might be called slums, though slums they were not, I would venture that they were more polite and graceful in manner, less selfish, more considerate for the feeling of others than a hundred children picked at random from upper Fifth Avenue, New York.

During my life in Japan I saw but one street fight, and this was so remarkable in its performance and surroundings that as usual I compared the action with similar experiences at

home. To describe our street fight would be unnecessary, as all know that from the smallest boy to the old man a crowd instantly gathers, forms a ring, and watches the combat with excited interest, admiring the punches and regretfully departing when the battle is finished or the police interfere. In the Japanese affair the men were simply pulling hair! I was the only one who watched. Every one else showed disgust or horror at such a breach of good manners, and a wide berth was given the fighters, people actually turning aside in passing.

In cities the houses are generally tiled, though there are many shingled roofs; in the immediate suburbs many thatched roofs are seen. Vast conflagrations occur in Tokyo on account of the inflammable character of the roofs, the shingles being hardly thicker than playing-cards and the thatched roof as sensitive to a cinder as gunpowder.

I have made many visits to Mr. Kashiwagi's, and to-day Dr. Bigelow went with me. He became greatly interested in the old lacquer boxes in the collection. For the first time I went up to the second story of the godown; it was literally crammed with boxes, cabinets, and various objects, all antique. Mr. Kashiwagi is one of the pleasantest men I have met in Japan. He is not afraid to say he does n't know when some questions are asked of him, and does not approve of Ninagawa's method of trying to tell the exact age of an object. Mr. Kashiwagi is full of antiquarian lore, and he gave me the other day the most rational explanation of the two brocade bands that hang down from the upper part of a kakemono. In former times the pictures were of a religious character, and when hung were supported on frames, long

bands trailing down behind, and short ones in front; and when the picture was rolled up it was tied by these bands. The open character of the temples, with the wind blowing through, compelled the rolling-up of the pictures without removing them from the frames. Nowadays, when the kakemono is rolled up, it is taken down and packed away in a box. In old books he showed me illustrations in which curtains were looped up by similar bands. The longer bands have disappeared, but the shorter ones in front have survived like the buttons on the back of one's coat. As a proof of the correctness of this explanation, the name of these bands is *futai* or *kazeobi*, the latter meaning "wind band."

I noticed the children playing with great animation a game with their hands, in which, at the end of the doggerel they were shouting, they clapped their hands three times and then gave the gesture for "judge," "fox," or "hunter." I asked them to recite the words slowly and took them down, with sketches of the various attitudes of the hand. The words as near as I could get them were as follows:—

Fig. 730

Ikken ki na sei (play once)
Cho bisuke san (Mr. Small, meaning little finger)
Janome no karakasa (eye of dragon umbrella)
San gai e de (third story of house)
Shichi ku deppo go sai na (?)
Mu teppo de (without gun)
Yoi! ya! na! (?)

Figure 730 is a rude sketch of the attitudes of the hand in the recital.

I give sketches of Yezo and Saghalien tobacco pipes, as given to me by Matsura Takashiro, who made rough sketches of them which I accurately copied. The Korean pipe has a larger bowl than the Japanese or Ainu pipe, but otherwise is much the same in form. It is interesting to look over old

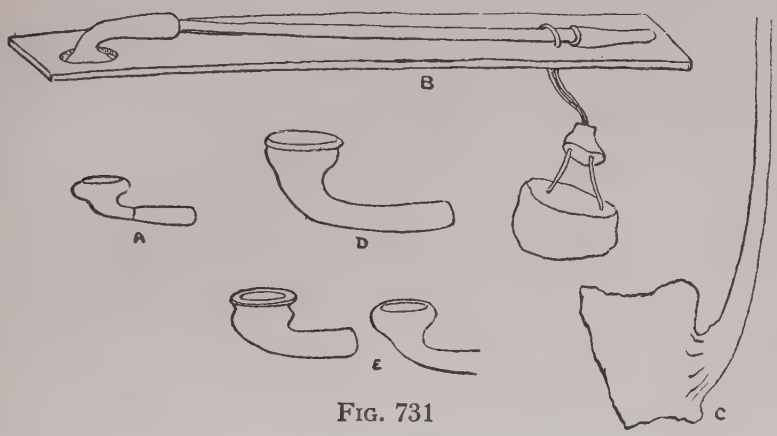


Fig. 731

Japanese prints, three hundred years old, and notice the absence of pipes, an object so universally used by the Japanese, and appearing repeatedly in picture prints since that time. (Fig. 731. A, Early Japanese pipe made of iron; B, C, Ainu pipes; D, Manchurian; E, Saghalien.)

To-day (Sunday, December 16) I went, by invitation of Professor Yatabe, to a large one-hundred-mat hall beyond the river to listen to Japanese music, story-telling, etc. A club having about eighty members was formed last March, and is intended to bring together for the first time ladies and gentlemen at social meetings. When I went in and took my seat

on a mat, I received about thirty bows from as many different people whom I knew. Many of my Japanese friends are members of the club, among them Mrs. Takamine, young Mrs. Takamine, Mrs. Kikuchi, Professor Kikuchi's little sister, Professors Hattori, Toyama, Koizumi, Matsubara, and Mitsukuri. Each member has the privilege of inviting one guest, and the result was the bringing together of over a hundred pleasant and delightful people: bright, cultivated men and women and a few lovely children. The hall was a great airy room with the audience sitting on the mats, drinking tea and smoking. At one end of the hall was a slightly raised platform, or rather a long, low table, covered with a red cloth, on which the performers were to sit. First came music — two kotos, a samisen, and a flute-like instrument; after this a story-teller, and though I could catch only a word here and there it was interesting to watch his various gestures as he portrayed the different characters in his story; the embarrassed fellow twisting his fingers together; the expressions of a countryman and the unceasing and rattling jabber of an old woman were all perfectly rendered and made everybody laugh. So strongly and promptly marked were the imitations of the different voices that with the eyes closed one would think that there were three distinct people talking. One often passes in some open lot a big tent from which issue the sounds appar-

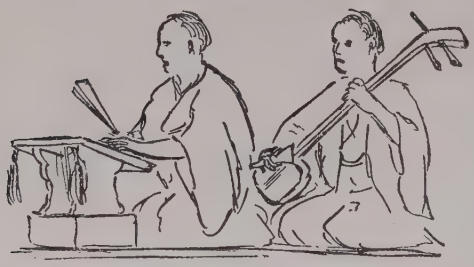


Fig. 732

ently of a number of people disputing. Looking in, you see a story-teller with a rapt audience about him hanging on to every word and at times bursting into surprised laughter. Women and girls are never seen in these places, where it is considered improper for them to go; just as in our country one never, or rarely, sees a woman in the crowd that surrounds an oratorical street peddler. After this came a peculiar kind of story, — a very common form in Japan, — in which the story-teller partly recites and partly sings his story, accompanied by another performer who plays the samisen, keeping up an extraordinary vocal accompaniment with curious guttural sounds, short notes, high squeaks, even sobbing sounds and astonishing ejaculations, appropriate to the parts depicted in the story. Strange as it may seem, people are affected to tears by pathetic recitals in this style. When one hears this form of story-telling it impresses one as highly absurd; becoming accustomed to it one can somewhat understand the reason for the vocal accompaniment in expressing emotions of pain, anger, despair, etc., but it is entirely beyond description. The samisen, too, is made to form an important auxiliary, for all kinds of sounds are evoked from it — crescendo, sobs, abrupt notes and weird notes — by running the fingers up and down the string while vibrating it (fig. 732). It was interesting and delightful to see this courteous and cultivated audience so gentle, quiet, and apprecia-

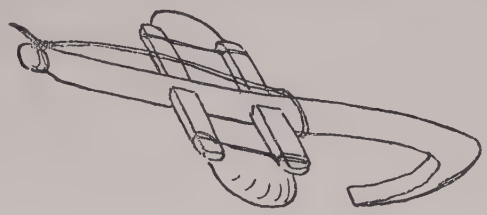


Fig. 733

tive, as they came in one after another, kneeling on the mats and bowing here and there.

In an old makimono, nearly six hundred years old, with a panoramic picture of the erection of a temple, the dishes designed for food are of lacquer, and this explains why so little progress was made in the fictile art in the early days. Only the very poorest people used pottery in those days. Unglazed and lathe-turned, as well as hand-manipulated, pottery was used for vessels of offering in burial-places.

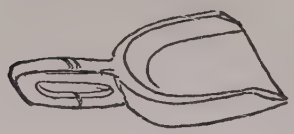


Fig. 734

I was in search of samples of Ainu cloth, or clothing, and was directed to a place beyond Eitaibashi. After a long hunt and a number of inquiries, I found a house where the people showed me an Ainu apron and other objects. When I asked the price, they insisted upon giving them to me. When I told them the objects were for the Peabody Museum, it made no difference. They told me that if I would come down on the 19th of December, they would have other Ainu objects to show me. So to-day I went there again, and they brought out an Ainu

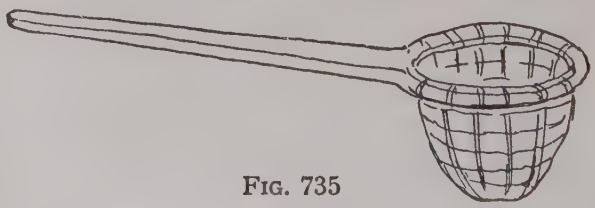


Fig. 735

garment, leggings, needle-case, and another apron. Again I attempted to buy the objects, offering them ten dollars, the coat always being expensive, but again they positively refused

to sell, and made me take them as a gift to the Peabody Museum. I gave them some trifling presents, and I have invited them on Sunday to go to the University Museum and to my snug quarters, where I shall give them tea and saké. These persons were absolute strangers to me, and this illustrates again the generous nature of the people. There was a model of an Ainu anchor (fig. 733); a genuine boat-bailer (fig. 734); an Ainu scoop net, with handle fifteen feet long (fig. 735) — a

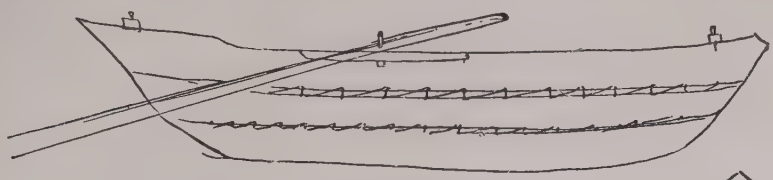


Fig. 736

very heavy and clumsy affair; and a model of an Ainu fishing boat (fig. 736) — all for the Educational Museum, Uyeno Park. The boat was curious in that the pieces were fastened together with cords and not with wooden pins. The boat differs greatly from the boats I saw at Hakodate and Otarunai, these being modeled after Japanese forms. Figure 737 represents the basket in which the Ainu carries the fish from the boat to the packing-house. It is simply a rude basket fastened to a board, which in turn is strapped to the back of the fisherman. A pair of Ainu boots made from the skin of a salmon (fig. 738) was given to me; the leg is very large, making the foot appear very short. I was told that the leg and foot were stuffed with straw to keep the feet warm. These boots are used by the Ainu on the Ishikari River.

The Female Normal School, of which Mr. Takamine is Director, was burned and with it the beautiful hall near the old Chinese college. The latter building was fortunately saved. The conflagration was intense in its heat and the firemen were helpless in getting near enough to do any good. There is no limit to the courage displayed by the firemen, but courage counts for nothing without proper weapons to fight with. Figure 739 is a hasty sketch made at the fire.

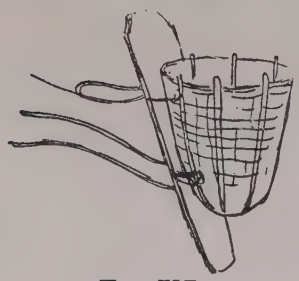


Fig. 737

The contents of a godown often resemble those of a garret or shed — old chests, baskets, corn drying, and the rejectamenta of a house, saved by the spirit of frugality in the hopes that sometime they may be useful. In case of fire the contents of a house, which after all amount at most to but a few objects, are hurried into the godown. As there are no bedsteads, chairs, or lounges and but few books, and as the valuable pictures and bric-à-brac are kept permanently in the godown, this is soon accomplished, the doors are closed and hermetically sealed with mud, which is always on hand in tubs, and sometimes, as in business streets, in front of the shop below the ground, access being had to it by a little trap door.

Fig. 738

I called on one of my special students, Mr. Sasaki. He has been married a few months, but I never knew of it till to-day. It seems to be an event that the Japanese never talk about,

Fig. 739

and when one is married it is always a matter of surprise. Two days ago I was invited by Mr. Mitsukuri to meet his wife with other friends at a tea-house. I am now so accustomed to Japanese life that it is becoming hard to realize how different it is from ours. At the tea-house was a large, spacious

room, absolutely devoid of furniture except for a row of square boxes in a line on each side and at the end of the room; in the boxes charcoal was burning in the ashes, and at each box was a soft, square cushion upon which one kneels. As I entered the room, where many had assembled with Mrs. Mitsukuri at the left of the entrance, down I went on my knees with hands in front and head touching the mat; it seemed perfectly natural for me to do so, and she did the same. As each one arrived his name was announced, and each one bowed to the bride. I knew nearly every one, and I noticed, as in many of these gatherings, that I was the only foreigner present. Food was brought in on trays; geisha and little girls passed the trays, poured saké, danced, sang, and made everything joyous. When we came away the untouched portions of our food were given us in the neatest of boxes to take home.

CHAPTER XXVI

FALCONRY AND OTHER MATTERS

Last Sunday (December 24) Dr. Bigelow and I were invited by Prince Kuroda to his place in the suburbs of Tokyo to see the method of falconry. We reached the house at half-past eight, and immediately went to the hunting-lodge, — for so it might be called, — an open, shed-like affair sheltered from the north wind and open to the sun, with a big square hole in the middle of the floor, filled with burning charcoal, where one could warm the hands and feet. There were tables and chairs, cigars, tea, and cake. An electric bell connected it with the duck ranges in the vicinity. Another room was occupied by the servants, the hawkers living outside. On a long rest were a number of curiously shaped nets on long poles, and at one side a small building with several compartments in which were kept the hawks.

After we had been waiting at the lodge a little while, the bell sounded, and we were told to start for the ranges. A hawker came after us supporting on his left hand a handsome, slender-looking falcon. The bird showed no signs of fear and stood very erect and expectant, with brilliant yellow and black-pupiled eyes. The grounds upon which we entered were cut up into narrow passageways bordered by high embankments upon which grew dense masses of bamboo. We entered a long, open place bordered on one side by bamboo groves,

and on the other side by a series of openings between the embankments with the similar crests of bamboo. These bamboo groves and fringes were intended to shield one from the wild ducks which might take alarm, though wild birds are so tame in Japan that there seemed hardly need of screens of any sort.

First, however, it is necessary to describe the main pond and the canals that lead from it, into which the wild ducks are

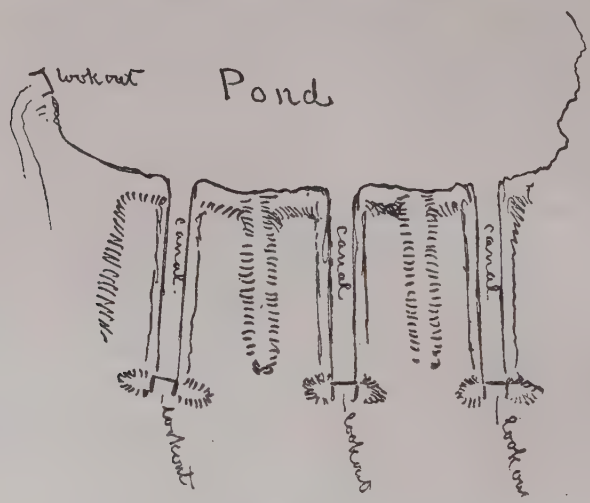


Fig. 740

decoyed and from which they fly and are caught by the oddly framed nets or by the hawk, as the case may be. A pond of some size is selected, or artificially made, into which the ducks are sure to alight. This is surrounded on all sides by thick groves of bamboo, and no one is allowed to approach the place except by a narrow path that leads to a little hut big enough for two only. In this hut are two little openings

from which you get a view of the pond. It was an interesting sight to catch a glimpse of the placid water closely framed in the dense bamboo, the sun shining brightly down on the backs of hundreds of little fat ducks, some swimming about, others resting on a thin film of ice in shadow, and on a little island in the middle of the pond a large heron stood on one leg, tranquil in its security. Here and there on the edges of the pond you could see by the darker shadows where the canals were

Fig. 741

into which the ducks were to be decoyed. Figure 740 shows the pond, the lookout, and the three canals which run from the pond, and figure 741 shows a section of the canals. These canals are three feet or more in width and four or five feet deep, the edges of the canal being raised in a slight embankment a foot and a half high, then an open space fifteen feet wide, then a high embankment as shown in section. This high embankment has a dense fringe of bamboo. In the canals are kept tame ducks which do not fly or show any fear of the falcon; these ducks are frequently fed, so that they will not go out to the main pond. The wild ducks, however, come into the canals, and through a minute hole in the lookout at the end of the canal one can see whether any wild ducks have come in.

The fact that the game is there being announced, you pass along on tiptoe to the open space at the side of the canal. The hawker approaches the little embankment where the

wild duck is supposed to be, and another man goes to the end of the canal near the pond and by waving the hand startles the wild duck, which flies up. As the duck appears above the low embankment the hawker throws the falcon at him, and away they go. The falcon invariably overtakes the duck, and tackling it by the head brings it to the ground, where it rests with its wings outstretched till the hawker comes and takes up the duck carefully, interlocks the wings behind its back, and then, by a dexterous thrust of the thumb, actually takes out the bird's heart. Sucking some of the blood, he feeds the hawk with a small bit of the heart so that it will be hungry for the next duck. If there are a number of wild ducks in the canal, then other men stand near the edge, with nets ready to catch the ducks as they rise.

FIG. 742

It was a stirring sight to see a number of men flourishing the long-handled nets as the ducks rose in the air, and at the same instant the two falcons were thrown, each pursuing a duck that got beyond and above the nets.

Figure 742 is the form of net used, and figure 743 represents the attitude of the hawkers. Skill is required to throw the falcon properly with a long sweep of the arm, the speed increasing as the bird leaves the hand. If the throw is too rapid, it pushes the bird off his wing, so to speak, just as if one were to push a boy who was running a race: if the push were too violent the boy would be thrown off his feet.

The method of catching and training the falcon is interesting. The bird is caught by means of a sparrow which is

imprisoned in a long, tubular net, larger in the centre and kept distended by hoops. This is held to the ground, tied to pegs at the ends, as shown in figure 744. Transverse to the tubular net is hung on poles a large net of the finest cord with wide meshes. This is about six feet in height and eight or ten feet in width, and is hung in such a way that it is easily released from the slender bamboo pole above and the split

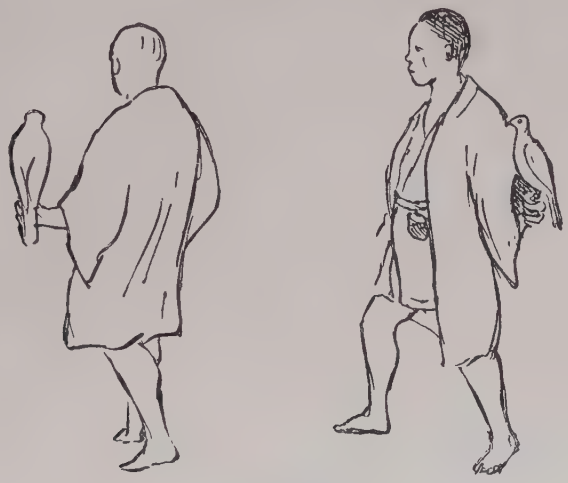


Fig. 743

bamboo on the ground (fig. 745). To catch the sparrow the hawker watches for a flight of sparrows over his head, then with a whistle makes a sound like a falcon; the sparrows take alarm, immediately dive to the ground, and with a flourish of the net the hawker is sure to secure a number. One of these is imprisoned in the tubular net and used as a bait. A wild falcon, as he passes over the net, spies the sparrow in the tubular net and makes a dive for it; the sparrow flies to the other end of the net, the falcon pursues it, and dashing into

the vertical net, is immediately entangled in it. The hawker illustrated to me the working of the net by throwing a big ball of twine at the net, which instantly became released from the four corners and the ball was enfolded in it. The falcon having been caught is kept in a dark room without food or drink—literally, almost starved to death, and becomes so weak and helpless that it can be handled. The hawker goes into the room with his face covered with a cloth and holds the falcon on his hand for an hour, and then feeds him on a little sparrow meat. This he repeats every day for some time. Finally, he takes the cloth from his face when he goes in; gradually a little light is let into the room, and the light is increased from day to day until the falcon becomes perfectly docile, and, knowing his keeper, is able to stand the full light of day and can be safely held by anybody. He never

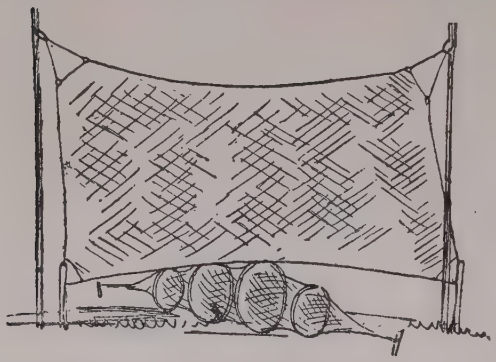


Fig. 744

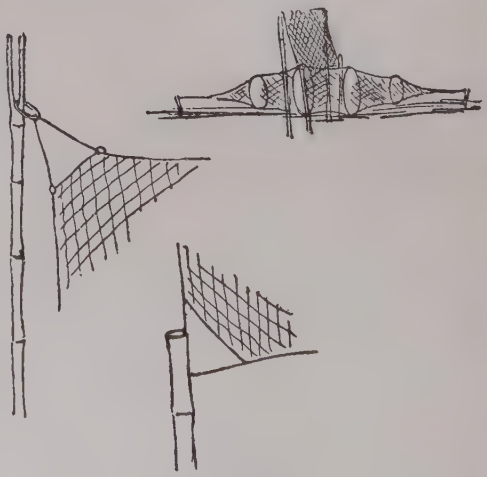


Fig. 745

attempts to escape, comes to the keeper, alights on his hand when he gives the signal, which is given by drumming on a box, and is altogether a rational and well-behaved bird. This work is accomplished in from thirty to forty days. One of the falcons used was a wild bird a little over a month ago. This ground, fitted for a falconry, had been in use for this purpose for over two hundred years. Figure 746 shows the

Fig. 746

little shelter and lookout at the head of one of the canals. The man is pouring seeds into a little funnel and watching through the hole at the same time. A few wooden decoy ducks were floating in the water, with the other ducks, but so perfect was the imitation that it was with the utmost difficulty that they could be distinguished.

Foreigners wonder why the Japanese object to their going about the country banging away at the birds. The banging of the guns frightens the birds away from the ponds over large

regions. With hawking and netting as above described the hunting may go on indefinitely.

It impressed me as a cruel sport, though the ducks are secured for the table. The quiet, unexcited way in which everything was done showed how often this diversion was practiced.

We were greatly entertained by this ancient sport, seen for

Fig. 747

the first time, and the Doctor vowed that when he got home he would establish it.

A kite shop in the height of the season is a curious and novel sight — a little shop entirely open in front with a quaint sign in the shape of a large cuttlefish made of framework covered with cloth, the arms of cloth swinging back and forth in the breeze, the whole device painted in bright colors. Though different characters are used in writing it, the word for kite

and for cuttlefish is the same; hence the use of a cuttlefish for a sign.

Figure 747 is a hasty sketch of one of these shops. Inside, hun-

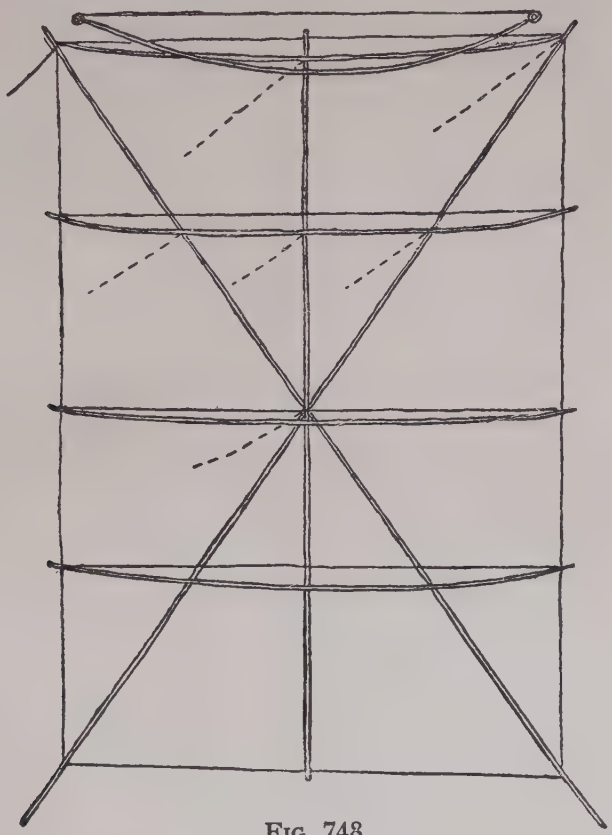


Fig. 748

dreds of kites were piled up in stacks, while two or three men were painting designs in the brightest colors, devils and mythological subjects, hideous masks, and the like. Outside ranged a group of boys of all sizes, crowding up to the shop eagerly to examine the stock. While I was making the sketch over the

heads of the boys in front, one old man grinned good-naturedly and another workman noticed me amiably; but none of them stopped work for a second, as they were too busy with their small customers. Their living for a whole year was apparently concentrated into a few weeks of kite-making. The prices seemed remarkably low, a big kite gaudily decorated in bright

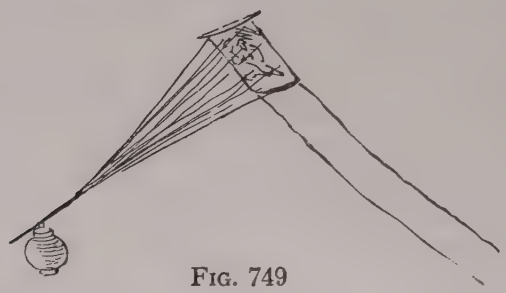


Fig. 749

colors being sold for three and one half cents and small ones, capable of flying, for one half cent. When a boy buys a kite the shopkeeper fits the string.

Figure 748 is a sketch of a kite nearly three feet in length, and the dotted lines show where the strings are attached in front connecting with the main string by which it is held. The boys send up paper disks on the strings as do the boys of the United States. We used to call them "messengers"; the Japanese boys call them "monkeys." A lantern is often sent up, sometimes two, and at night it is lighted. The strings running from the kite to the main cord are numerous and of great length. They seem to run from every point where the bamboo strips of the frame intersect, from top to bottom, and as in a large kite the strips run up and down, across and diagonally, there are many points of intersection (fig. 749).

Our kite-flying is in the most rudimentary stage compared to the Japanese methods and devices. It is a curious sight to see a group of boys flying kites, nearly every one having a baby tied to his back (fig. 750).

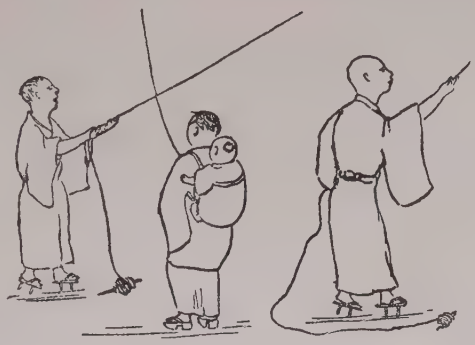


Fig. 750

A common form of kite in Nagasaki is shown in figure 751. It is made with a straight strip of bamboo, having a hook at the upper end by which to hang it up, and a few inches below the top a strip of bamboo, four feet long, fastened to the upright piece and bent like a bow; strings, holding down the ends of the bow, are fastened to the central piece four feet below. This forms the framework upon which the paper is fastened, making a segment of a circle about one fifth. The cord is fastened to the point where the bow is attached and also to the bottom of the kite, and runs out in front six feet or more. A very long bob hangs below.

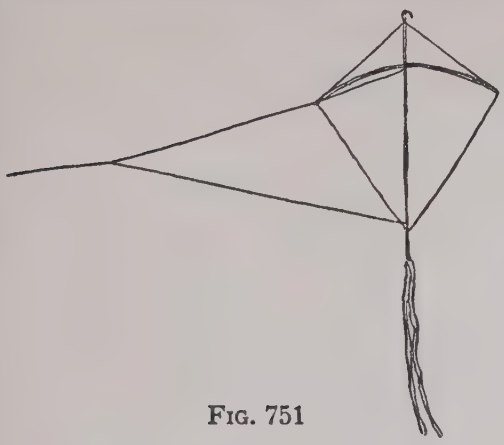


Fig. 751

As a substitute for the hot-water bottle for cold beds the

Japanese use the fire-bowl with a few coals, protected by an ample wooden frame. This is put under the futon, or wadded comforter, and supplies the proper heat.

Figure 752 is a sketch of Mr. Kohitsu, from whom I am taking lessons in the tea ceremony. He is quite an expert in pottery and a very agreeable man. Figure 753 is a sketch of Mr. Kohitsu's shoe closet.[1] Though Mr. Kohitsu has a small family, there are a number of shoes or sandals for each inmate: low ones, fine ones for best clothes, and high ones for muddy weather, and some of them, by their appearance, evidently worn out. Indeed, one can judge from the appearance of the clogs left outside of a house the social status of the strangers he is going to meet within.

Fig. 752

As with us at home the Japanese have candy in which is enclosed a motto of some kind. Figure 754 shows one pinched up in a triangular form. It was made of molasses and was brittle, and tasted like a gingersnap without the ginger. The

[1] Though this has been given in *Japanese Homes*, I reproduce it from the original sketch, as it is one that the Japanese say makes them homesick.

free translation of the motto is as follows: "Determination will go through rocks, why then can we not be united?" Mr. Dan, who translated this, tells me that the mottoes usually refer to love or politics; he also informed me that the idea was old. As a boy I remember similar devices at home with printed love mottoes folded inside.

Fig. 753

The devotion of servants who have been faithful to the family was shown New Year's day by Tatsu, our old jinrikisha man, coming to my house with his little child and bringing as a gift a large basket of oranges; and the next day Kichi, our old cook, brought me a box of *yokan* (made of sugar and beans) and wished me a happy New Year. Both of them inquired after the family and remembered the names of Edith and John. The cook told me he had a good place in a Japanese restaurant.

Figure 755 is an ingenious device called the *hikisawa*, made of brass or silver, used by Japanese draftsmen to rule straight lines with a brush, as they have no drafting-pen. The brush is placed in a groove, A, reaching down to the end, B, which

rests against the ruler; the upper part, C, is flattened; and with this they rule preliminary lines, and most delicate lines can be made.

Yesterday (January 11) I was invited to lecture at the opening of Mr. Okuma's school. My subject was Evolution, or Darwinism, and Mr. Ishikawa, one of my old special students, interpreted for me. After the lecture we were invited to Mr. Okuma's summer house just back of the school—a house with beautiful rooms, built twenty years ago strictly in Japanese style. The rooms were very large and high-studded, and the tokonoma was proportionately deep. I have noticed in large halls that the tokonoma is of great depth, and the kakemono and the vases or ornaments are of proportionate size. It may be interesting to mention that the seat of honor is in front of the tokonoma. Mr. Okuma had engaged a famous blind biwa player (fig. 756). The music was entirely unlike that made by other instruments; certain notes are quite plaintive and touching. The bridges of the biwa are very high and the strings are pressed down between the bridges, and with varying degrees of pressure curious wavering notes are produced. Remarkable modulations are thus made, and Japanese of refinement are often affected to tears by the exceedingly sweet and caressing notes

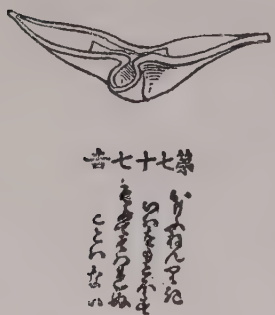


Fig. 754

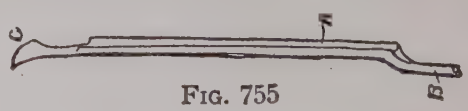


Fig. 755

the instrument emits in the hands of a master. The plectrum is certainly a foot wide across the flat edge. After he had played awhile a glass was brought in containing a number of green leaves. Taking one of these leaves the player held it with two fingers against his lower lip (fig. 757), and blowing over it in some way made remarkably clear notes, high and low, by pressing more or less with the fingers. I tried in vain to make the sound and managed after a while to evoke a squeak.

Fig. 756

After this entertainment we were invited into another room where Japanese food was served, and though I have tasted many delicious foods in Japan I never tasted such excellent soups as we had. One, containing slices of wild boar, was particularly good. Raw fish in vinegar was fine. I had to hurry away at six-thirty to meet another engagement.

To-day (January 12) I gave another lecture at the University on the reptilian affinities of birds. It was strongly Darwinian and the students seemed to enjoy it.

Lately I have found a bowl with the mark of Fuji, which proves a great puzzle to the Japanese experts. Kohitsu called it Ninsei, Kiyomizu, two hundred years old, but he had never

seen the stamp before; Kashiwagi identified it as old Akahata, Yamato; Ando said it was Hagi, Yamato; Masuda recognized it as old Satsuma; Maida thought it might be Naniwa, Settsu; and another expert, whose name I do not recall, pronounced it Shino, Owari. I give this as an illustration of the divergence of opinion among the Japanese connoisseurs, and to show the difficulties in the work of identification of puzzling pieces.

FIG. 757

Bigelow, Fenollosa, and I were invited to dine at the house of Prince Kuroda, who was formerly Daimyo of Chikuzen and is a brother of a famous Satsuma prince. He is very fond of animals, especially birds. He told me that after he had heard my lecture on ants some years ago he had observed their habits. The Prince is nearly seventy years old and slightly infirm, but is full of interest in scientific subjects. He lives in a foreign-built house with large, pleasant rooms and open fireplaces. We spent three hours looking over his collection of Takatori pottery and kakemono.

January 16 the Doctor and I were invited to dinner at Mr. Okuma's in his city house, which is near the University. The house is in foreign style and very beautiful; Dr. Bigelow pronounced it perfect in its appointments. The dining-room had a beautiful wood floor, and over the doors and windows were elaborate wood carvings. The garden is in pure Japanese style, with the exception of a circular plat of grass, which is certainly not Japanese. Japanese food was served on trays with chopsticks on a table at which we sat in chairs.

The gateways of the Japanese are nearly always picturesque, though many of them are frail in appearance. It is rare, however, to see one in ruins or in disrepair. They are never painted, and are made of light, thin strips, though the upright posts are thick and enduring. Quaint old planks of wood, with curious twisted branches, form a framework for the most delicate panel-work of braided lattice, or beautiful designs cut in stencil. Sometimes a bamboo is cut longitudinally to form the centre of some panel. It is these contrasts between the strong and light, rough and delicate, that add a charm to these structures. Rustic effects are seen in the city in fences, wells, and the like.

Fig. 758

I visited an old chajin and pottery sharp named Nishikawa Rokubei, who thinks that "floral decorated Satsuma" is three hundred years old. He repudiates Ninagawa, Kohitsu, and everybody else, and looked like figure 758 when I told him that all the evidences were against him.

I had made an appointment with Mr. Nishikawa to see his pottery, but when I got to the house he said he had only a few objects to show me, as the godown had been sealed up owing to the high wind, and he had not dared to open it. From a cupboard, however, he dragged a large basket-like box from which he took a few specimens of pottery. The box had bands

arranged upon it so that a man might carry it on his back (fig. 759).

For the last few days the wind has blown a furious gale, and everywhere on the street are seen preparations in anticipation of a large conflagration. Few goods are displayed; godowns are partially sealed with mud, men mixing the mud in the hole in front of the shop, or in a large jar on a projecting shelf below the second-story window for ready sealing. What with the terrible conflagrations and chances of destructive earthquakes, it is no wonder that dwelling-house architecture has hardly developed. It is useless to build more than temporary shelters.

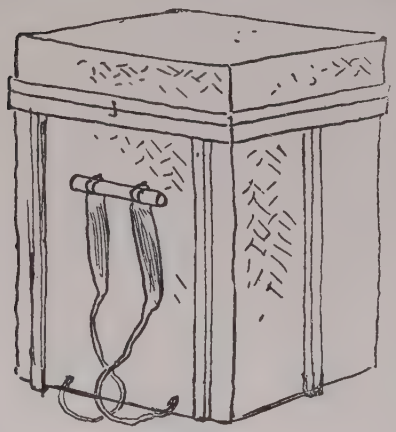


Fig. 759

In an old book which I have is given the genealogy of the Kohitsu family. For fourteen generations they have been chajins and experts in pottery, and have been recognized as authorities in the identification of old pottery, writings, and kakemono.

Yesterday morning, about four o'clock, I was awakened by a sudden and severe shock of earthquake. My floor is within two feet of the ground, yet the shock was so violent that the pottery on the shelves rattled at a great rate. It really seemed as if the house must fall, but before I could collect my wits it was all over. Dr. Bigelow is in a hotel, in the second story, and he thought the house would surely come down.

January 18. The wind is still blowing a gale, yet boys and men are flying kites. I saw two men hanging on to a kite rope, the kite being over six feet square. The kites are certainly much stronger than ours or they could not stand such severe gales. The Japanese play with kites more than we do, and many men are seen flying them.

The other night I was invited to an interesting gathering. Mr. Tanimura, a teacher of cha-no-yu, has a meeting every month of men who are interested in old Japanese pottery. It is a guessing party, and each one brings a specimen of pottery difficult to identify. These are numbered and recorded in a list by one who does not take part in the guessing contest. The method is rather curious. The party sit around in a circle with candles in the middle, and each one has a lacquer cup with his name written on the bottom. A specimen of pottery, such as a tea-jar, bowl, or incense-box, is passed around, each in turn examines it, and then with a brush and India ink records his guess on the inside of the lacquer cup and places it face downward on the mat. When every one of the party has marked his guess, or opinion, the host records each name and opinion in a book. In this way we examined a number of old tea-jars, tea-bowls, and the like. It may be interesting to record that I got the highest number of correct attributions, and it was also gratifying to know that I was not alone when in error. A tea-jar that I called Takatori was said to be Zeze by the judge, for that was the name written on the box from which it was taken: an unsafe evidence, for the original piece in the box may have been broken or lost and another jar substituted that would fit the box—a very common practice. The

two potteries closely resemble one another, however. Another piece said to be Koda, I am sure was not, as I am pretty sound on that pottery. It was interesting to meet such a pleasant party. One was a student, another a doctor, a third was an editor of a daily paper, another was a gentleman of leisure, and the host was a pottery expert. They all expressed their amazement at the quickness of my decisions, as I always put my lacquer cup down first. The others would look at the piece in

FIG. 760

turn, expressing their emotions in curious sounds, saying it was odd or troublesome, and grunt over it, and at the very last moment write their decisions. Figure 760 is a hasty sketch of the party.

Takamine told me a good story of a famous judge, Itakura, of the time of the first shogun, who used to sit behind a screen when he heard evidence and grind tea at the same time. The stone mill is quite heavy, and to grind the tea properly the mill must rotate slowly. He sat behind the screen so as not to see the witness's face; otherwise he might be prejudiced; and

he had to repress his emotions, otherwise he would grind the tea rapidly and thus ruin the powdered tea.

I took my first lesson in Japanese singing this afternoon. With a letter of introduction, I, or rather my jinrikisha man, found the way to Mr. Umewaka, who lived at Asakusa Minami moto machi Kubanchi. He is a famous teacher of *no* singing and acting, and has adjoining his house a stage for *no* play. Takenaka accompanied me as interpreter. We were presented, and Mr. Umewaka was very hospitable and seemed pleased that a foreigner should wish to take lessons in singing. Takenaka explained that I had many things to do and must begin at once. Mr. Umewaka brought me a singing-book and read slowly the words I was to learn, and I wrote them down as well as I could. I had to sit down with legs bent directly under me in Japanese fashion. This method of sitting is intolerable to a foreigner at the outset, but I am now able to sit an hour and a half without discomfort. He placed in front of me a little music-stand and gave me a fan which I held resting on my leg. He sang a line and I sang it after him; then he sang another; and so on through the eleven lines of the piece. After trying it twice in that way we sang together. I realized how very rich and sonorous his voice was. Then I observed that, do what I would, my notes sounded flat and monotonous while his were full of inflections and accents, though all on one note. I felt awkward and embarrassed at the absurd failure I was making and perspired freely, though it was a cold day in January. Finally, in desperation, I threw off all reserve and entered into it with all my might, resolved, at any rate, to mimic his sounds. I inflated my abdomen tensely, sang

through my nose, put the tremulo stop on when necessary, and attracted a number of attendants who peeked through the screens to look on, in despair, no doubt, at a foreigner desecrating the honored precincts by such infernal howls. Be that as it may, my teacher for the first time bowed approvingly at my efforts, complimented me when I got through my first lesson, and told me, probably in encouragement, that I would in a month's time be able to sing in *no* play. Figure 761 shows the attitude of the teacher and pupil. It is by taking actual lessons in the tea ceremony and in singing that I may learn many things from the Japanese standpoint. The method in singing is to depress the diaphragm, making the walls of the abdomen as tense as a drum, this acting as a resonator. The strain on the voice is so great that a singer will often cough in the midst of the singing.

Fig. 761

I was interested the other day in observing the behavior of two children to whom I showed some prints. They began to count the number of objects when they were in sequences, as children do at home. Indeed, the more I see of children here the more resemblances I find to our children. In their games there are some striking differences, and yet many of the games are alike, such as the bounding of a ball on the ground by patting it with the hand, and the jackstones played with little

bags filled with peas and beans instead of stones. There is no hoop or skipping-rope; indeed, in the latter game they would shake down their nicely arranged hair. The children clasp their hands together and pound them on their knees making a peculiar sound which they call "money"; our children do the same thing. They also have the play of seeing who can stare the longest without smiling. Takamine told me that when the children eat an orange they play with it by making a shallow cup with a segment of the rind, and then, nipping off the end of the segment, squeeze a few drops of juice into the cup, thus pretending to drink saké. The children have many ways of utilizing such objects for toys.

In Japanese personal names there are many like Kichizaemon, Hachizaemon, the termination *zaemon* and *uyemon* being quite common, at least among the potters whose names I am collecting. These names mean, respectively, "left guard gate" and "right guard gate." *Bei*, as in Rokubei, means "soldier guard." Many of their names indicate a soldier origin of the family.

Fuji has put on some magnificent appearances lately. It has been very cold for some time, with high winds. Fuji is covered to the base with snow, and for the last two nights the sun in sinking behind the mountain has illuminated the snow which has been whirled up in clouds from the sides. The appearance of the dark gray mountain in shadow, outlined with the most brilliant golden border and a rich rose halo, has been a sight of remarkable beauty. Fuji is about forty miles in a straight line from Tokyo, and I have a wonderful view of it every day as I ride to the University, and every day it is beautiful in the

changing lights, shadows, snow effects, etc. In figure 762 the upper drawing shows the mountain with the snow illumined by the setting sun; in the lower drawing it is shown as illumined by the rising sun, with shadows of clouds. The other

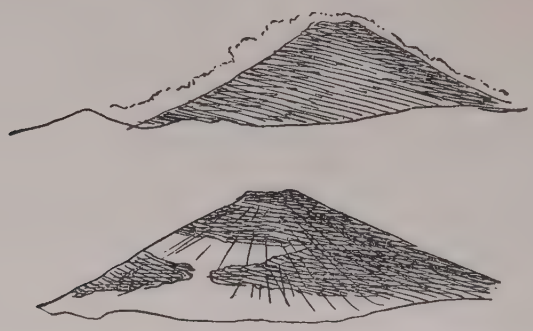


Fig. 762

morning Fuji was in deep shadow from clouds with the exception of irregular areas which were dazzling white.

I went through the cemetery at Uyeno to-day and inquired for Matsura's grave and found it (fig. 763). I was curious to see how the cutting of the epitaph I wrote had been done. It was finely engraved in capital letters, the gravestone a dark slate. The Japanese epitaph, written by one of the students, is thoughtful and significant.[1]

"His family name Matsura and given name Sayohiko. His native province Tosa. Early entering college he devoted himself to study of biology. By diligent labor he made considerable progress. On 5th day, 7th month, of Meiji 9th, aged 22, died of fever. His nature was actively keen; he treated men

[1] In my course of lectures in the Lowell Institute I read this epitaph, and that dear man, William James, expressed great interest in it and asked for a copy.

altogether without discrimination; hence he was lovingly sought by all. His friends subscribed to erect this monument and this is written for the inscription: —

> "The cherished hope is not yet fulfilled,
> As the faded flower he fell,
> Alas, the law of Nature!
> Is it right, or is it wrong?

"Inscription by Shogoi Kusakabe Tosaku. Erected by those of Tokyo Daigaku interested, 8th day of 7th month, 12th year of Meiji."

For the last week I have been hard at work translating, with an assistant, a number of manuscript volumes of Ninagawa relating to pottery, which the family will not sell, though they are of no possible use to them. In them I find a great deal of information and enough to show me what an untiring student of pottery he was.

Fig. 763

Dimples in higher class ladies are not considered pretty because they accompany laughter, and laughter is undignified; among servants, however, dimples and a fat, robust figure are regarded favorably.

On February 2, 1883, there was the biggest snow-storm for many years; the snow was nearly a foot deep on a level. It required two men to drag me to the University. The children went off to school barefooted on their clogs, carrying their stockings in their sleeves so as to have something dry

to put on in school. It is curious to see the jinrikisha men and other laborers barefooted and barelegged in the snow and slush. Directly after the first snowfall came another, accompanied by a high wind. The snow drifted in great piles, and even in Maine the storm would have been considered a "rouser"; for two days the streets were impassable. This storm was followed by cold weather, so after several days the snow remains in great drifts.

It is interesting to see how the art tastes of the people are manifested in the figures they make in the snow. A very common figure is that of Daruma, a follower of Buddha, often pictured and made in metal, pottery, or carved in ivory; a great many bridges and arches are made and lanterns placed in some. In one case I saw a miniature garden with pathways, summer-houses, stone lanterns, and the like. Masses are wrought in the form of large balls of mochi, one on top of another and diminishing in size. A very common picture shows two large pinnacles of rock with straw ropes and pendent straws hanging from one peak to the other; this was beautifully rendered in snow. Also the sun rising out of the waves,—the waves gracefully carved and the sun made by pressing snow in a shallow tub, making a disk like a big cheese. These and many other designs arrested one's attention in riding through the streets. People are walking about, most of them, particularly women and children, carrying bamboo canes to support themselves. The people seem perfectly helpless in the presence of such a depth of snow, and there seems to be no effort on the part of the city authorities to remove it.

I have already taken several lessons in singing, and although

I have a fairly quick ear, I have not been able to carry away two consecutive notes, or to recall any notes. It has been very interesting to see how different their music is from ours. Their manuscript music has no notation, no indication of anything but inflections indicated by short lines, level, or slanting upward or downward, or with undulations up or down. My teaching is entirely by rote, the teacher first giving the line and I singing after him. I noticed almost immediately that he varied slightly each time. Sometimes certain notes are made sharp and again the same notes are flattened. In my mind *Utai* is not singing, but inflectional declamation, not unlike the conversation of the countrymen of Yorkshire. Many years ago Dr. Philip P. Carpenter, brother of the famous physiologist, actually rendered into musical notation conversations he had heard among the farm people of Yorkshire. He sang me one which I have always remembered. The music I am studying is written with short dashes pointing downward, or upward, or level. My teacher at the outset had told me that I must keep my abdomen distended, — a constant strain, — with the result that my voice would be sonorous; it was a difficult accomplishment to acquire. The various forms or schools of Japanese music, whether vocal or instrumental, are listened to by a foreigner, first with bewilderment, and then greeted with laughter. It was a humiliating experience to attend a Japanese entertainment in which classical music was sung, music that would bring tears to the Japanese eyes, and have it greeted by the Englishmen in the audience with contemptuous laughter. You hear quaint music in the East, music that excites your interest, music that prompts your feet to beat

time, but Japanese music is simply unintelligible to a foreigner. As their pictorial art was incomprehensible to us at the outset, and yet on further acquaintance and study we discovered in it transcendent merit, so it seemed to me that a study of Japanese music might reveal merits we little suspected. For that reason I studied Utai, a school of Japanese music, taking my lessons of the famous teacher Umewaka. Professor Yatabe, a graduate of Cornell, while thoroughly approving the adoption of many features from abroad and admitting their superiority, nevertheless insisted that the Japanese music was superior to ours.

Figure 764 is a hasty sketch of a sword-maker in Tokyo. I find no memorandum in regard to it and at this late date can recall nothing. The hammers of the helpers are very odd.

I have already alluded to the love of collecting among the Japanese and have briefly mentioned some of the objects they collect. Since that record I have seen many other collections, and they comprise pottery, porcelain, cloth, swords and sword details that are found on the handle and scabbard, autographs, coins, stone implements and beads, brocade, pieces of which are stuck into books as are stamps in stamp collecting, pictures, drawings, books, ancient manuscripts, old furniture, such as cabinets and priests' desks, sticks of ink and inkstones, roofing tiles, lacquer, and metal ornaments. Very few collect natural objects, though I have met some collectors of insects, shells, and plants.

In examining Japanese hand-work of any kind the foreigner is immediately impressed by the fact that all surfaces of the object are equally well finished. Whether it be a bronze fig-

Fig. 764

ure, lacquer box, inro, or netsuke, the base is finished as carefully and accurately as the exposed surfaces. One is amazed to find the ventral portion of a carved insect, or the base of a sculptured animal, finished with anatomical accuracy. A good illustration of this fidelity in work is often seen when some

family is moving its household furniture, not much, to be sure; yet, when the bureaus, low desks, lacquer cabinets, lacquer boxes, etc., are piled together on a cart, one notices the contrast with similar furniture vans at home. Even from the house of the rich the load appears fairly squalid, while the Japanese load from the house of the poor suggests anything but squalor.

The Japanese children, and for that matter the nation, have no such thing as a lead pencil or chalk, crayon, writing-pen, or fluid ink, except what they make themselves by rubbing a hard piece of India ink with water in some receptacle, usually an ink-stone. A writing-box of wood or lacquer contains an ink-stone with shallow spaces on each side for brushes with which they write, a paper-knife, stick of India ink, and a little vessel, holding water, with two minute openings, one of which you cover with your finger, thus checking the flow of water from the other opening. Unless the ink is already prepared, one has to allow a few drops of water to fall on the stone, and then the ink is rubbed until the result is sufficiently black. Then only can one write a letter, which is done on a roll, — vertically, of course, — and as line after line is written the paper is unwound till five or six feet may be unrolled according to the length of the letter. It is then torn off, wound up again, flattened by smoothing with the hand, and slid into a long, narrow envelope which has lately come into use. If one is in a rage and is inclined to dash off an angry letter, he has sufficient time to cool off in getting ready to write it.

A device known as *yatate* (fig. 765) takes the place of our fountain pen. It is usually made of metal and consists of a

tube to hold the writing-brush, and attached to the top, at right angles, is a receptacle for a wad of cotton saturated with fluid ink. The writer can get ink enough on his brush to write a few characters. The artistic work seen on these devices almost equals the work seen on the sword-guards and other metal furnishings of the sword. The designs are infinite. The yatate is thrust into the obi, the ink-holding portion preventing it from sliding through. The carpenter has a device, carved out of wood, consisting of a receptacle holding ink-saturated cotton, and a wheel on which a cord is wound, the cord passing through the cotton as it is wound and unwound. The cord has an awl attached to it, and the carpenter makes an ink line on the board by pulling the string out and with the awl fastening it to the board and then snapping it, as our carpenter does his chalk-line. The device should be adopted by our carpenters, as it makes a sharp, black, durable line.

Fig. 765

Mention has already been made of the boy's substitute for a slate. The child begins the practice of writing Chinese characters, using a large brush for the purpose. A book of paper sheets, usually six by nine, though often larger, is a substitute for the slate. The characters are drawn of large size on these sheets and are drawn over and over again. Only one side of the paper was used in the book here figured, consisting of thirty-two leaves. The freshly written character shows plainly on the dried ink-markings of the day before. Figure 766 gives the appearance of these books.

On visiting famous temples the priests present you with paper slips, and sometimes thin wooden tablets, upon which the name of the temple and other characters are written. These tokens are fastened to the side of the house entrance to ward off contagious diseases and evil influences. Figure 767 represents one of these tokens from the temple of Nantaizan. It is five inches long.

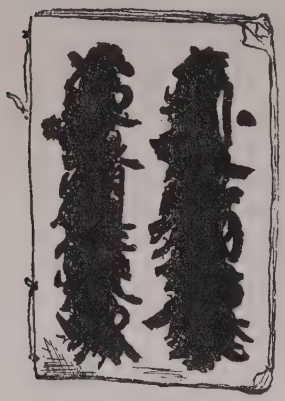


Fig. 766

In Tokyo, and presumably in the larger cities, a little wooden tag is worn under the clothes of the child, on which are inscribed the name of the child and the house and district in which the child lives. The policeman simply reaches down the neck of a lost child, pulls out the tag, and promptly returns the child to its anxious mother. Figure 768 represents the tag worn by Dr. Takenaka when a boy.

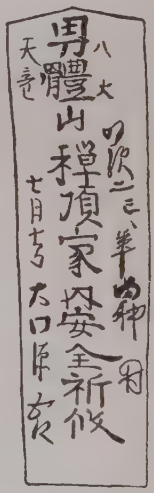


Fig. 767

One of the many features that attract the eye of the foreigner are the hair ornaments of the women and especially of the little girls. With scarcely an exception the hair is formally arranged, usually in a broad knot, or some other shape, behind. At the junction of this knot with the head, red crape is tied, and at this place ornamental hairpins are thrust. These are called *kanzashi*. Here one sees the ingenious way in which, with

the simplest materials — cloth, gold paper, delicate spiral springs, straw, spangles, red coral, etc., — a great variety of objects are made. Quite half the designs represent flowers. I do not remember ever seeing a natural flower worn in the hair nor on the person. Many of them represent a story or act of some kind; a child painting a kakemono (fig. 769), a bird-cage (fig. 770), a bird in bamboo (fig. 771). Elaborate as some of them are, the cost is trifling — a cent or two. Hardly a visit is made without a present of some kind being offered, and these kanzashi are favorite objects for that purpose.

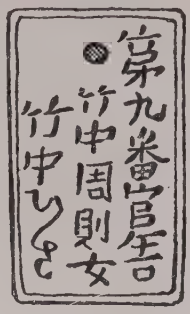


Fig. 768

In Buddhistic families one often hears a blessing asked by the host. At a private dinner each one declines the seat of honor and some time elapses before the guests are seated. It is not considered polite to accept articles of food when offered the first time, but only when passed the second time. In our country the uninformed Japanese student often suffers in consequence of this form of good manners. They depreciate their children and themselves, their homes, houses, and possessions; a feature due to Chinese cult. Hokusai often signed his pictures with characters meaning "a stupid pen."

Fig. 769

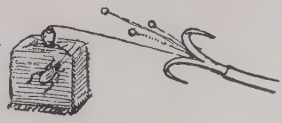


Fig. 770

Prince Nabeshima invited me to dinner, and as Mrs. Samuel Bright was visiting us she was also invited with Mrs.

Morse. There were twenty or more at the table, and Mrs. Bright was curious to know the religious belief of the gentlemen present. It was a somewhat embarrassing inquiry. I had explained to her before that the cultivated Japanese had outgrown whatever belief in Buddhism or Shinto they may have had. The question was skillfully presented by Prince Nabeshima, and without exception every one, though with many smiles, confessed his freedom from religious belief.

With the exception of a certain region in Tokyo, known as the Ginza, the sidewalk is unknown. The Ginza for a certain distance had been built in foreign style, with two-story brick blocks, a brick sidewalk, and a curb. Elsewhere in the city the carriageway extends from one side of the street to the other, and is slightly rounded in the centre, and fairly hard and smooth. The people throng into the middle of the road. One never sees people keeping step in walking, neither men, women, nor children. Sometimes two men will hold hands, or one will have an arm flung over his companion's shoulder. The absence of rhythm in their walk is noteworthy, as with our people even school-children keep step in walking. One realizes at once that the Japanese never dance together as we do. The waltz, the polka, and other old-fashioned dances requiring absolute rhythm in their movements, and the school drill of marching out of school to the music of a piano, all contribute to the marching habit.

Fig. 771

Mr. Ninagawa, the antiquarian, who has been mentioned

elsewhere in these pages, and who died in 1882, frequently called on me. Mr. Kohitsu, another antiquarian, was an occasional caller. The front door of the little house I occupied opened into my only room, which functioned as a library, workroom, and bedroom as well. In calling upon me in winter these men would knock on the door, which I would promptly open for them. They would show no signs of recognition of my presence until they had removed their hats, which they would place on the step; then, untying the handkerchief about the neck, folding it, and placing it in the hat, they would make a few profound bows, which I would return, and then they would enter the house. These men never called on me together; whether their relations were strained I never learned. I was amazed that the various experts that I met in Japan seemed always unfamiliar with one another's work. Ninagawa published an interesting work on Japanese pottery, with remarkable illustrations in lithography, yet the various experts in pottery that I have thus far met seemed utterly ignorant of its existence.

An indication of the rational character of the Japanese is seen in the numbers that are abandoning the queue. The students were the first to do so. In the country one sees everybody wearing the queue; also in the city among the lower classes. Old scholars, too, still adhere to the custom. Ninagawa not only always wore the queue, but his outer garment was slit as if he still carried the two swords. Mr. Kohitsu, a teacher of the tea ceremonies and a pottery expert, while retaining the Japanese dress, told me that he gave up the queue a few years ago. Old men with very little hair still

manage to gather the few hairs on the back of the head, wax them, and construct a queue the size of a toothpick. On one occasion, in a crowd, I had before me a bald head with a queue of this description. I noticed that the queue was black, so it must have been dyed or stained with ink. A closer examination revealed the fact that a black line had been painted vertically on the scalp in line with the queue, thus making the queue appear an inch longer. A mischievous boy might have been tempted to swing the genuine queue gently to one side!

The Japanese have an interesting way of waking a sleeper. Instead of loudly speaking, or roughly shaking him, the person begins to tap his shoulder in the most quiet manner, slowly increasing the force of the taps until they become vigorous slaps; the sleeper finally wakes without the slightest shock and with wits fully established. Hospital nurses and others should adopt this method.

A marked characteristic of the Japanese is their love for nature. They not only enjoy nature in all its aspects, but they enjoy it with an artist's eye. So dominant is this trait that the city directory of Tokyo devotes a few pages to pointing out places in the parks and suburbs where nature in its finest aspects is to be found. The following is a translation of these pages copied from the "Tokyo Times":—

For snow effects: the banks of the Sumida River, Koishikawa, Kudan, Uyeno, and Atagoyama, during the later winter.

For plum blossoms: Mukojima, Asakusa, Kameido, latter part of February.

For cherry blossoms: the banks of the Sumida River, Oji, Uyeno, Higurashi, Koganei, from the middle of April.

For peach blossoms: Osawa village, from the middle of April.

For pear blossoms: Namamugi village, during the latter part of April.

For Yamabuki (*Kerria japonica*): Mukojima and Omori, in April.

For peony: Garden of Somei, Terajima, Meguro, in mid May.

For fleur-de-lis: Horikiri, in May.

For fuji (wistaria): Kameido, Meguro, Noda, latter part of May.

For morning-glory: gardens of Somei and Iriya, from the middle of July.

For lotus: Mokuboji, Uyeno, Tameike, Mukojima, from the latter part of July.

For the seven flowers of autumn: Terajima, from latter part of August.

For Hagi: Buddhist temple of Rengeji at Terajima, and at Kameido, from the latter part of August.

For chrysanthemums: Meguro, Asakusa, Garden of Somei, Sugamo, in November.

For maple leaves: Konodai, Oji, Tokaiji, Kaianji, in November.

We are also informed in this connection that for firefly hunting we must resort to the paddy-fields in Asakusa, Oji, Koishikawa, along the Sumida River and elsewhere in the early summer. Oji and Meguro are mentioned as furnishing excellent waterfall fishing in the same season. Various places are also named where one can catch "sweet singing insects."

In addition to what appears in connection with the "Hints," we are reminded of the garden of Dangozaka, celebrated for chrysanthemums; Tabata, for plum blossoms; Nezu and Higurashi, for cherry blossoms, maples, and kirishima; Aoyama, Asakusa, for its waterfall and pine trees; Tsunokami, Yotsuya, for all sorts of flowers; Shinfuji, Shibuya, for pretty grasses; Susaki Benten, for fishing at low tide, and Takinogawa for its waterfall and maples.

The loyalty of the people to residents of their own province is noteworthy. They provide lodging and food, if able to do

so, to any one coming from their own province, whether relation, friend, or total stranger. A Japanese friend of mine told me that he had entertained in this way six young men whom he had never met and had kept them a number of days.

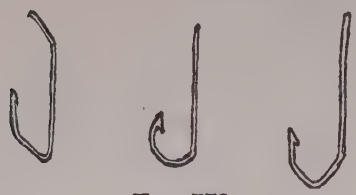


Fig. 772

The main supply of animal food is derived from the ocean. Nearly every creature living in the sea is used as food by the Japanese. The vertebrate fish forms the larger proportion of food, though nearly every species of mollusk of sufficient size may be found in the market as well as the cuttlefish; eggs of the sea urchin; a worm-like *Sabella*, the brachiopod *Lingula; Cynthia*, an ascidian; and a number of seaweeds. Of the vertebrate fish many more species are eaten than with us. Not that we do not have as many species, or nearly as many on our coast, but our taste seems to be confined to a few kinds. I remember as a boy flounders were never eaten. Formerly on the coast of Maine the haddock was not considered a food fish. Nearly all fish caught by the Japanese is brought to the market and is sorted and sold. Thousands of fishermen in their little boats and men and boys on the rocks are catching all kinds of fish. With us only those fish that can be caught or netted in great numbers are thought worth while to bring to the market; hence the food fishes are limited to a few kinds, the

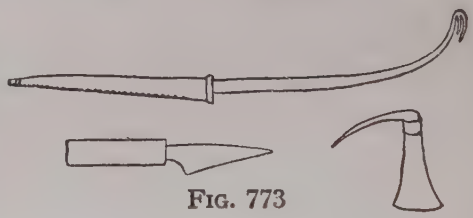


Fig. 773

principal ones in New England being the cod, haddock, mackerel, and halibut. We are extremely limited in our taste for mollusks, the clam, quahog, oyster, and scallop, and, rarely, the mussel, forming the usual supply. The periwinkle, an imported species, may be found in the market for the Italian population. It is commonly eaten in England, and is sweet and nutritious. As in many other matters each province in Japan has its special type of fishhooks. Figure 772 represents the cod hook in the provinces of Echizen, Echigo, and Ugo. The eel hook, which is tied to the end of a long pole, an ordinary fish knife, and a hand hook for sorting fish are shown in figure 773. In Iwashiro the fishermen use a hook for catching bonito, a kind of mackerel. The stem is a mass of lead, in the side an oblong strip of pearl is introduced; and at the end, surrounding the hook, are strips of stiff paper (fig. 774). For trolling, a wooden fish is used, with a metal keel to keep it upright and a double row of hooks in the tail. The model is browned over hot coals and darker spots are burned on the sides (fig. 775).

Fig. 774

Fig. 775

The bric-à-brac dealers in Japan, as in all other parts of the world, are not famous for their rectitude. When one recalls the frauds he may have purchased in Europe or America in the way of old furniture, oil paintings, especially "old masters," Egyptian relics, etc., he will not judge too harshly the Japanese dealers in "old Satsuma" (often warm from the furnace), old kake-

mono, and the like. With all this knavery one cannot but admire the ingenuity of some of these cheats. As an example, a dealer will find some old house with a quaint garden in the suburbs of Yokohama or Tokyo. If he can induce the occupant to move out for a few weeks, "bag and baggage," he will fill it up in an appropriate way with kakemono, bronzes, folding screens, lacquer boxes, and the like. If he can persuade the owner — provided he is a dignified old gentleman — to play the part of a decayed daimyo, who by an unfortunate turn of affairs has become poor and is compelled to sell his art treasures, the trap with its bait is complete. A foreigner just landed and wild for choice examples of Japanese art, is incidentally told by some dealer that he knows of a retired daimyo, within a few miles of the city, who is compelled by stress of circumstances to part with his household belongings, and a rare chance is offered to secure heirlooms of great merit and antiquity — such an opportunity as occurs but once in a lifetime. Jinrikishas are engaged, and after a long and delightful ride he arrives at the modest house of the supposed daimyo. The dealer goes ahead and announces his coming. He is then formally presented to the venerable old man, who with exquisite politeness offers tea and cake and possibly a little saké. He is abashed by the impertinence of his intrusion, and while preliminary skirmishing goes on through an interpreter his eyes greedily roam about the room selecting the objects he is bound to possess, at the same time hypnotized by the dealer and beguiled by the refined and deprecating manner of the dear old man. He is ashamed to modify the prices modestly mentioned for this,

that, and the other object. With a feeling of exalted triumph he rides back to the hotel with jinrikisha loaded with purchases, sure that this time at least he has secured rare old treasures, to find out that the stuff is all fraudulent and that he has been most egregiously swindled. The trouble taken by these dealers and the ingenuity they display are manifested in other ways. If you are in the Government employ, or a teacher in the University, and have a regular route of travel to and from your duties, an object you have admired and bartered for in some remote part of the city, and which you have refused to buy on account of its price, is placed in the hands of a dealer whose shop is on a street through which you daily pass. The price is lower, and the chances are that you secure it. With suspicions that it is the same object that you had refused to buy in another part of the town, you immediately visit the remote dealer to find that the piece you wanted has been sold. If, furthermore, you refuse to buy the object and again visit the remote dealer, you find the object in his possession with a still lower price. I have had this experience several times.

An old dealer by the name of Gonza, who had helped me greatly in Nagoya by guiding me to various dealers of bric-à-brac in that large city, and who seemed above suspicion, attempted to swindle me afterwards in a manner that, had I not been familiar with Japanese pottery, would have resulted in my being woefully cheated. I had copied very carefully from an ancient manuscript certain incised marks of some of the early potters of Seto. These copies were sent to Gonza with the request that he would hunt up pieces bearing these signatures

and the highest prices would be paid for them. After the lapse of a few months a box came to me from Nagoya, with a letter from Gonza giving a history of these old potters, and samples

Fig. 776

of their work in the shape of tea-jars, bowls, and other objects in pottery, with marks on the pottery apparently the same as the copies I had sent him. I was sufficiently familiar with Japanese pottery to see at a glance that the pottery, instead of being three or four hundred years old was not over thirty or forty. With soap and water and a brush the first applica-

tion brought out the dirt that had been rubbed in, leaving the incised marks clear and bright. An ordinary lens showed that the marks had been scratched in the hard-baked object, whereas genuine incised marks are done in the clay before it is baked and show raised clay at the ends of the lines. I immediately wrote to him a fierce letter, stating that all the marks were fraudulent, and that I should show him up as a swindler in my contemplated work on Japanese pottery. In the course of a few weeks I got a letter, with a water-color drawing on silk, from Gonza (fig. 776). The following is a rough translation of his letter by Mr. Takenaka: —

MORSE SENSEI —

DEAR SIR, — Sometime ago on account of my unexercised eyes I made a mistake in criticizing potteries. I am very much ashamed. To ask your forgiveness again for my fault I send you now a note of the acknowledgment of my error. In the picture the gentleman sitting in the chair and inspecting pottery is Morse Sensei, another is Mr. Takenaka, the other is Mr. Kimura. The man who kneels down at the front of them and who is imploring pardon is Gonza. At last I pray you to be kind to me in publishing your book on pottery. I regret very much that I acted wrong against you whenever I think of the book you are going to publish.

I remain, dear Sir, your obedient servant,

GONZA.

The poem in the picture reads as follows: "In the world almost everything is so. You cannot see from the outside the astringency of some persimmons."

When I returned home from Japan I crossed to China, and after a short stay in that country, I went down the coast, touching at Annam and spending some little time on the Malay Peninsula and in Java. From Yokohama to Shanghai I sailed with Captain Connor, an Essex County, Massachusetts, boy. After passing through Shimonoseki Straits, Captain Connor pointed out to me a rocky and precipitous island, and said that eleven years before he and his wife were on a vessel that was wrecked on this island. The night was very dark, though the sea was calm. Rockets of distress were sent up, and in a short time fishermen came alongside from up and down the mainland, to aid in any way. The personal property of the passengers was passed over the sides of the vessel to these rescuers, who disappeared in the darkness. In the morning a Japanese Government steamer drew alongside, and taking the passengers and crew aboard, landed them at Nagasaki, a distance of one hundred and forty miles from the scene of the shipwreck. The passengers, somewhat anxious about their personal property, consisting of all their clothing and other items, wondered how they were to recover it, and were politely informed by the officers that as soon as the Government could post notices along the coast road indicating some places where the property might be brought, all the material would be gathered and returned. Within a few days every single item, to cuff buttons and soiled collars, was brought to Nagasaki, and not a single object was lost. Captain Connor added, with a bitter smile, that a few years before he and his wife were wrecked on the coast of New Jersey in the month of November. It was very cold at the time. It is needless to

mention the bitter treatment they received except to state that they were robbed of everything.

In no better way does the freedom from all bigotry show itself than in the way in which the Chinese practice of medicine was doomed when the people began to see the sound principles of the foreign practice. The prompt establishment of a medical college, and the inquiries that were made as to where Americans were sent to finish their medical education, showed the sagacity of the Government. It was found that our distinguished physicians and surgeons had studied in the medical schools and hospitals of Berlin and Vienna. Thereupon Germans were invited to teach in the medical college and students had to be well grounded in the German language before entering. Furthermore, a chemical laboratory was established in Yokohama for the purpose of examining all drugs that were imported to the country to ascertain their purity. The absurd pharmacopœia of the empirical Chinese practice was discarded, although in the country one would often see hanging from the ceiling the dried fœtuses of deer (fig. 777), or dried centipedes, and other grotesque absurdities representing the materia medica of the Chinese.

Fig. 777

A quack is called a bamboo doctor, probably because the bamboo is light and hollow.

I made the acquaintance of Mr. Sugi, head of the Statistical

Department of Tokyo, and found him a very intelligent man, interested in the antiquities of Japan, tea ceremonies, and the like. From him I secured many interesting facts regarding health conditions of Tokyo. Dr. Baker, of Lansing, Michigan, Secretary of the State Board of Health, sent me his report for 1879. Among vital statistics I found that eighty-seven murders had been committed in that year. As the population of the State of Michigan at that time was only slightly larger than the population of Tokyo, I asked Mr. Sugi how many murders had been committed in Tokyo for the year. He said none; indeed, only eleven murders and two cases of political assassination had been committed in Tokyo in the last ten years.

On inquiry of Mr. Agee and others in regard to the first public lectures in Japan it was difficult to secure reliable information. The renowned Fukuzawa informed me that in 1871 a number of scholars met together and papers and essays were read. The sessions were private. In 1873–74 an association was formed under the name of Mairokushi, consisting of older scholars. The public was admitted to their discussions. Transactions were also published. In 1874–75 Mr. Fukushi and Mr. Numa gave a few lectures, for which a small admission fee was charged. In the latter part of 1875 a lecture association was established under the name of Kodankai. Messrs. Fukuzawa, Obata, Enouye, Yano, Agee, and other scholars met twice a month. A small fee was charged for admission to the lectures, and at first much opposition was shown by some of the members, as it was thought highly improper, not to say discourteous, to ask an admission fee. Another organization

was effected in 1878, known as the New Kodankai, the first meeting being held on September 21, 1878. Mr. Agee attempted to establish public lecturing as a paid profession, after the American method. Again the charging of an admission fee caused the resignation of some of the members. The lectures were given on Sunday, and four or five lectures were given at each session, with an intermission of a few minutes between the lectures. Among those who lectured in the first course were Messrs. Sugi, Nishi, Toyama, Kawazu, Kato, Agee, Kikuchi, Numa, Fukuzawa, Sato, Fujita, Nakamura, and three Americans, Mendenhall, Fenollosa, and Morse. The lecturers were Japanese and American professors of the Imperial University, officials of Government departments, editors, a Buddhist priest, and other prominent men. The lectures were given in a large hall, and the audience averaged from six to eight hundred and showed no diminution in numbers to the end. It was interesting to see the auditors squatting on the matted floor, — not closely jammed together, — attentive and evidently eager to understand the lectures on evolution in religion, in the solar system, and in the animal kingdom. The platform was only slightly raised above the level of the matted floor. There was, of course, no artificial heat in the hall. At times it was so cold that I had to wear my thick winter ulster while lecturing. Compelled to be in my stockinged feet, I endeavored in vain to stand in one place, but by the end of the lecture my feet were very cold. At the end of the lecture many of the auditors would rise to exchange greetings with some friends in other parts of the hall. I used to watch the place where some corpulent auditor was sitting,

and if he rose, I would find the hot spot on the mats where he had sat and warm my feet till the lectures proceeded. It was a curious experience in my early lectures in Japan to have a police officer armed with a sword sitting in a chair by my side and facing the audience. My lamented friend, Mr. Agee, was known as a radical, and he interpreted my lectures. He might have made me utter the most seditious sentiments, so far as I knew, for I had only acquired a few Japanese words and expressions. Later in my lecture experiences I had learned enough of the language often to grasp the meaning of my interpreter's translation, and on a few occasions I ventured to correct him. The pleased and sympathetic expressions of my auditors at the evidence that I was beginning to understand their language, were gratifying.

The following is a list of subjects dealt with in the first course of the Kodankai: —

Sept. 21. Mr. Toyama. On public speeches and lectures.
Mr. Kawazu. Advantages and disadvantages of a representative assembly.
Mr. Fujita. Necessity of coöperation.
Mr. Nishi. Congratulatory address.
Mr. Fukuzawa. Criticism on his "Rights of the Nation."
Mr. Morse. Congratulatory address.

Oct. 6. Dr. Hasegawa (of the city hospital). Evil effects of drinking impure water.
Mr. Numa. Conflict of native and foreign laws.
Mr. Shimaji. On value.
Mr. Kikuchi. Evolution of the solar system.
Mr. Ouchi. Advantages of admitting women to more social privileges.
Mr. Nishi. Practice makes perfect.
Mr. Nakamura. On competition and coöperation.
Mr. Mendenhall. Introductory address.

Oct. 20. Mr. Kikuchi. Evolution of the solar system (continued).

Oct. 20. Mr. Morse. Insect life.
Dr. Kato (Director of the Imperial University). On the opinions of Moto-ori and Hirata. (Old Japanese scholars who believed that Chinese civilization ought to be disregarded, as the Japanese had a civilization of their own.)
Mr. Toyama. Association of ideas.
Mr. Sugi. Moral statistics.

Oct. 27, 28, 31, and Nov. 2. Mr. Morse. A course of four lectures on Darwinism. Evolution of the animal kingdom.

Nov. 10. Mr. Agee. On the army and navy.
Mr. Nishi. Practice makes perfect (continued).
Mr. Fenollosa. Evolution of religions.
Mr. Ono. Battle of words. (Showing the persuasive effect of eloquence.)
Mr. Fujita. On the Forty-seven Ronins.

Nov. 17. Mr. Fukuzawa. Rights of the nation (extra territoriality).
Mr. Kikuchi. Future of the solar system.
Mr. Toyama. Matters relating to foreign intercourse cannot easily be altered.
Mr. Fenollosa. Evolution of religions (continued).

Dec. 1. Mr. Kawazu. Absurdity of Socialism.
Mr. Fenollosa. Evolution of religions (concluded).
Mr. Morse. The Glacial Theory.
Mr. Tsuji. On the fine arts.

Dec. 15. Mr. Agee. On assumed virtue.
Mr. Kikuchi. What constitutes a good government.
Mr. Fujita. Necessity of checks.
Mr. Sugi. Moral statistics.

Jan. 5. Mr. Kikuchi. Evolution in general.
Mr. Toyama. Illusion of the senses.
Mr. Morse. Laws of growth in animals.
Mr. Nakamura. Good and evil of society.
Mr. Kato. A few words to the members.
Mr. Sato. Cultivation of the brain.
Mr. Agee. On the evil effects of rewarding informers.

An insight into the intellectual activities of the Japanese may be gathered, not only by the books which have been translated into Japanese and sold by the thousands, but by the subjects dealt with in these public lectures. I know of no

public course of lectures in the United States to compare with them, except the Lowell Institute's free courses of lectures in Boston.[1]

The intellectual character of the audience may be judged by the fact that it sat patiently through a session of four or five one-hour lectures with only a slight intermission between them. What lecture audience in America, or in any other country, could stand such an ordeal as that!

The official positions of some of these men who lectured in this first course of the association are as follows: Mr. Fujita, editor of a Tokyo daily paper; Mr. Nishi, formerly clerk in the War Department; Mr. Fukuzawa, famous teacher, representative in new local assembly; Mr. Hasekawa, doctor in the City Hospital; Mr. Numa, clerk in Genroin (Privy Council); Mr. Shimaji, Buddhist preacher; Mr. Kikuchi, Professor of Mathematics, Imperial University, Cambridge wrangler; Mr. Ouchi, editor of a Buddhist religious journal; Mr. Kato, director of the Imperial University, famous Dutch scholar; Mr. Toyama, Professor of Philosophy, graduate of the University of Michigan; Mr. Sugi, head of statistical department; Mr. Kawazu, clerk in Genroin; Mr. Agee, Professor of the Imperial University; Mr. Ono, clerk in Genroin; Mr. Tsuji, clerk in the Educational Department.

In the fall of 1882 the Department of Education invited the head teachers of the various *kens* to meet together in Tokyo for the purpose of discussing matters connected with their work. Among other questions that came up was one referring

[1] Our public lecture courses have now fallen from their high standard of thirty years ago to lantern shows, musical entertainments, with rarely a thoughtful or scientific lecture.

to the teaching of physical science in the schools. It was urged by many that the apparatus for this purpose was far beyond their power to purchase, and without the apparatus but little progress could be made. Thereupon the pupils of the Tokyo Normal School resolved to make a number of devices to illustrate how cheaply and easily many of the instruments required for the study of physics could be made. Before the session ended the students had made fifty-six instruments, which were exhibited on the platform, with a list of the materials used in their construction. These materials consisted of bits of glass and wire, bottles, corks, bamboo, stuff that could be got from any junk-shop. From the list of devices here given it will be seen that the Japanese are not only apt pupils in acquiring a knowledge of physical science, but that they display a great deal of ingenuity in fabricating the proper apparatus for its illustration. I could not help realizing what a grasp of the subject a student would get in studying out and constructing this primitive apparatus. Such an example might profitably be followed by our students at home with their Yankee ingenuity and skill with a jack-knife, and with a far larger assortment of materials to be found, even about the house.

List of devices

1. Balance.
2. Balance with weights.
3. Pendulum.
4. Centrifugal machine.
5. Inclined plane.
6. Centre of gravity, double cone.
7. Dropping-machine with pendulum.
8. Centre of gravity. Equilibrist.

9. Lever balance.
10. Heros fountain.
11. Suction pump.
12. Cohesion figures.
13. Barker's mill, with inclined plane.
14. Forcing pump.
15. Illustrating air pressure.
16. Geissler's air pump.
17. Illustrating suction.
18. Air receiver, with manometer.
19. Baroscope, with air receiver.
20. Windmill.
21. Illustrating suction.
22. Air pump exhausting and condensing.
23. Tuning-fork.
24. Vibration of bell.
25. Savert's apparatus, with two kinds of resonator.
26. Sonometer, with bow.
27. Wave phenomena.
28. Resonator.
29. Pyrometer.
30. Expansion of solid.
31. Angle mirrors.
32. Rumford's photometer.
33. Efflux of gas.
34. Light experiment.
35. Camera obscura.
36. Continuation of light.
37. Diffusion of light.
38. Hollow prism.
39. Expansion of gas, with index.
40. Expansion of liquids.
41. Illustration of thermometer.
42. Magnetic needle.
43. Magnetic needle, with stand.
44. Electric pendulum.
45. Universal discharger.
46. Electro ball.
47. Electro pendulum.
48. Discharger.
49. Insulating stool.
50. Alarum bell.

51. Electro wheel.
52. Nairne's electro machine.
53. Leyden jar.
54. Galvanometer.
55. Galvanic keys.
56. Gravitation battery.

The following is a list of the objects used in construction: copper, brass, and iron wire, bamboo in various forms, thread and string, augers and gimlets, saucers, card, zinc and tin plate, lead bullets, old seats, shallow wooden tub, lid of box, spinning-top, thin boards, wine bottles, glass tubing, buckets, lamp chimney, paper and cardboard, pieces of leather, copper coins, shell, wine glass, tumblers, rubber tubing, mercury, candles, flask, rubber ball, needles of various kinds, wheat straws, lady's scissors, porcelain bowl, cups, lantern, abacus balls, paper tea caddy, priest's bell, draughting-board, hook nails, mirror glass and ordinary glass, magnifying glass, feather, sealing wax, vitriol, watch-spring, small bottles, and funnel.

The rough and aggressive Anglo-Saxons, until within a half-century, have held the most erroneous ideas of the Japanese. It was thought that a nation whose men flew kites, studied flower arrangement, enjoyed toy gardens, carried fans, and manifested other effeminate customs and behaviors, must of necessity be a weak and childish people. The "Encyclopædia Britannica" of 1857 says: "The Japanese at one time enjoyed a high reputation among Eastern nations for courage and military prowess. This, however, is no longer the case, and we suspect they will be found an essentially feeble and pusillanimous people. According to Golownin, they are deficient in

courage, and in the art of war mere children. This can scarcely fail to be the case with a people who, by all accounts, have enjoyed peace external and internal for more than two centuries. A courageous and patient endurance of pain and suffering, and even a contempt of death, we know to be quite consistent with a lack of active, aggressive courage." It is not necessary to go back as far as that, however. Lord Curzon, in his interesting book entitled "Problems of the Far East," published in 1894, in speaking of Japanese aspirations says: "The military parade which Japan, taking advantage of the recent disorder in Korea, is making in that country as these pages go to press, and which threatens to involve her in serious dispute, if not in actual conflict, with China, is a later outcome of the same impetuous Chauvinism." He further says these demonstrations "bring a smile to the lips even of the most impassioned apologist for national delirium." Recent events have shown how superficial was the judgment of the Anglo-Saxon.

The two great nations, China and Russia, the terror of Europe, were both thrashed by the Japanese within a period of eight years (1894–1902); their fleets utterly destroyed, and indemnity secured — in cash from China, and from Russia the southern half of the island of Saghalien. England for the first time regarded Japan as worthy of notice and formed an alliance with her. Really the ethics of a mining camp!

A late writer on the Japanese says: "Togo's people, the Japanese, are a race of patriots — toilers and warriors, too. Their characteristic is not yet fully understood by the peoples of the West. They have been represented to us by many superficial observers as a race of imitators, incapable of original

action, competent only to select the best inventions of other people and to apply these inventions in an awkward manner for their own use. Nothing is further from the truth. No people on earth is keener in search of exact knowledge. No people on earth is animated by a stronger national feeling. No people on earth is capable of larger individual sacrifice for the common good. No people on earth excels the Japanese in clarity or subtlety of logical thought."

In closing, the reader may wonder, after the manners of the Japanese have been so often contrasted with those of ourselves, what my attitude is regarding my own people. I believe that we have much to learn from Japanese life, and that we may to our advantage frankly recognize some of our weaknesses. The words of Mr. O'Meara, the Police Commissioner in Boston, have deeply impressed me. He declared that hoodlumism was the greatest menace to our country. I have therefore held up in contrast the behavior of the Japanese. My comparisons are not invidious. They are simply plain statements of facts as I saw them forty years ago. To feel this weakness of ours is not to condemn us as an inferior people, and one may still read with a feeling of pride and belief such appreciative comments about America as Hall Caine, in "My Story," writes. "I love its people because they are free with a freedom which the rest of the world takes as by stealth, and they claim openly as their right. I love them because they are the most industrious, earnest, active, and ingenious people on the earth; because they are the most moral, religious, and above all, the most sober people in the world; because, in spite of all shallow judgments of superficial ob-

servers, they are the most childlike in their national character, the easiest to move to laughter, the readiest to be touched to tears, the most absolutely true in their impulses, and the most generous in their applause. I love the men of America because their bearing towards the women is the finest chivalry I have yet seen anywhere, and I love the women because they can preserve an unquestioned purity with a frank and natural manner, and a fine independence of sex."

THE END

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